
UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2021
- or
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

COMMISSION FILE NUMBER: 001-33988

Graphic Packaging Holding Company

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)
1500 Riveredge Parkway, Suite 100
Atlanta, Georgia
(Address of principal executive offices)

26-0405422
(I.R.S. employer identification no.)
30328
(Zip Code)

(770) 240-7200

Registrant's telephone number, including area code:
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class
Common Stock, \$0.01 par value per share

Trading Symbol(s)
GPK

Name of Each Exchange on Which Registered
New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Smaller reporting company

Non-accelerated filer (Do not check if a smaller reporting company)

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of voting and non-voting common equity held by non-affiliates at June 30, 2021 was approximately \$ 5.5 billion.

As of February 21, 2022 there were approximately 307,103,551 shares of the registrant's Common Stock, \$0.01 par value per share outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

TABLE OF CONTENTS OF FORM 10-K

INFORMATION CONCERNING FORWARD-LOOKING STATEMENTS		3
PART I		
ITEM 1.	BUSINESS	4
ITEM 1A.	RISK FACTORS	12
ITEM 1B.	UNRESOLVED STAFF COMMENTS	15
ITEM 2.	PROPERTIES	15
ITEM 3.	LEGAL PROCEEDINGS	17
ITEM 4.	MINE SAFETY DISCLOSURES	17
	EXECUTIVE OFFICERS OF THE REGISTRANT	18
PART II		
ITEM 5.	MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	20
ITEM 6.	[RESERVED]	22
ITEM 7.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	23
ITEM 7A.	QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK	37
ITEM 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	39
ITEM 9.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	89
ITEM 9A.	CONTROLS AND PROCEDURES	89
ITEM 9B.	OTHER INFORMATION	89
ITEM 9C.	DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS	90
PART III		
ITEM 10.	DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	90
ITEM 11.	EXECUTIVE COMPENSATION	90
ITEM 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	90
ITEM 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE	90
ITEM 14.	PRINCIPAL ACCOUNTANT FEES AND SERVICES	90
PART IV		
ITEM 15.	EXHIBITS AND FINANCIAL STATEMENT SCHEDULES	91
ITEM 16.	FORM 10-K SUMMARY	96
SIGNATURES		97

INFORMATION CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements regarding the expectations of Graphic Packaging Holding Company (“GPHC” and, together with its subsidiaries, the “Company”), including, but not limited to, startup charges for the new paperboard machine in Kalamazoo, Michigan, the availability of U.S. federal income tax attributes to offset U.S. federal income taxes and the timing related to the Company’s future U.S. federal income tax payments, charges for exit activities, capital investment, depreciation and amortization, accelerated depreciation related to exit activities and pension plan contributions in this report constitute “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. Such statements are based on currently available operating, financial and competitive information and are subject to various risks and uncertainties that could cause actual results to differ materially from the Company’s historical experience and its present expectations. These risks and uncertainties include, but are not limited to, the continuing effects of the COVID-19 pandemic on the Company’s operations and business, inflation of and volatility in raw material and energy costs, changes in consumer buying habits and product preferences, competition with other paperboard manufacturers and converters, product substitution, the Company’s ability to implement its business strategies, including strategic acquisitions, the Company’s ability to successfully integrate acquisitions, productivity initiatives and cost reduction plans, the Company’s debt level, currency movements and other risks of conducting business internationally, and the impact of regulatory and litigation matters, including those that could impact the Company’s ability to utilize its U.S. federal income tax attributes to offset taxable income or U.S. federal income taxes and those that impact the Company’s ability to protect and use its intellectual property. Undue reliance should not be placed on such forward-looking statements, as such statements speak only as of the date on which they are made and the Company undertakes no obligation to update such statements, except as may be required by law.

PART I

ITEM 1. BUSINESS

Overview

Graphic Packaging Holding Company (“GPHC” and, together with its subsidiaries, the “Company”) is committed to providing consumer packaging that makes a world of difference. The Company is a leading provider of sustainable, fiber-based packaging solutions for a wide variety of products to food, beverage, foodservice and other consumer products companies. The Company operates on a global basis, is one of the largest producers of folding cartons in the United States (“U.S.”) and Europe, and holds leading market positions in coated recycled paperboard (“CRB”), coated unbleached kraft paperboard (“CUK”) and solid bleached sulfate paperboard (“SBS”).

The Company’s customers include many of the world’s most widely recognized companies and brands with prominent market positions in beverage, food, foodservice and other consumer products. The Company strives to provide its customers with innovative sustainable packaging solutions designed to deliver marketing and performance benefits at a competitive cost by capitalizing on its low-cost paperboard mills and converting plants, its proprietary carton and packaging designs, and its commitment to quality and service.

On January 1, 2018, GPHC, a Delaware corporation, International Paper Company, a New York corporation (“IP”), Graphic Packaging International Partners, LLC, a Delaware limited liability company formerly known as Gazelle Newco LLC and a wholly-owned subsidiary of the Company (“GPIP”), and Graphic Packaging International, LLC, a Delaware limited liability company formerly known as Graphic Packaging International, Inc. and a direct subsidiary of GPIP (“GPIL”), completed a series of transactions pursuant to an agreement dated October 23, 2017, among the foregoing parties (the “Transaction Agreement”). Pursuant to the Transaction Agreement (i) a wholly-owned subsidiary of the Company transferred its ownership interest in GPIL to GPIP; (ii) IP transferred its North America Consumer Packaging (“NACP”) business to GPIP, which was then subsequently transferred to GPIL; (iii) GPIP issued membership interests to IP, and IP was admitted as a member of GPIP; and (iv) GPIL assumed certain indebtedness of IP (the “NACP Combination”).

During 2020, GPIP purchased 32.5 million partnership units from IP for \$500 million in cash, fully redeeming the 18.2 million partnership units that were required to be redeemed in cash. On February 16, 2021, the Company announced that IP had notified the Company of its intent to exchange additional partnership units. Per an agreement between the parties, on February 19, 2021, GPIP purchased 9.3 million partnership units from IP for \$150 million in cash, and IP exchanged 15.3 million partnership units for an equivalent number of shares of GPHC common stock. On May 21, 2021, IP exchanged its remaining 22.8 million partnership units for an equivalent number of shares of GPHC common stock. As required by the parties’ agreement, these shares were immediately sold by IP. As a result, IP has no ownership interest remaining in GPIP as of May 21, 2021.

Acquisitions, Closures, and Dispositions

Over the past five years, the Company has successfully completed over ten acquisitions and expects to pursue strategic acquisition opportunities in the future as part of its overall growth strategy.

2021

On July 1, 2021, the Company acquired substantially all the assets of Americraft Carton, Inc. ("Americraft"), the largest independent folding carton converter in North America. The acquisition included seven converting plants across the United States and is reported within the Americas Paperboard Packaging reportable segment. For more information, see "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

On November 1, 2021, the Company acquired all the shares of AR Packaging Group AB ("AR Packaging"), Europe's second largest producer of fiber-based consumer packaging. The acquisition included 30 converting plants in 13 countries and is reported within the Europe Paperboard Packaging reportable segment. For more information, see "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

2020

On January 31, 2020, the Company acquired a folding carton facility from Quad/Graphics, Inc. ("Quad"), a commercial printing company. The converting facility is located in Omaha, Nebraska and is included in the Americas Paperboard Packaging reportable segment. For more information, see "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

In March 2020, the Company made the decision to close the White Pigeon, Michigan CRB mill and to shut down the PM1 containerboard machine in West Monroe, Louisiana. During the second quarter of 2020, the Company closed the White Pigeon, Michigan CRB mill and shut down the PM1 containerboard machine. For more information, see "Note 18 - Exit Activities" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

On April 1, 2020, the Company acquired the Consumer Packaging Group business from Greif, Inc. ("Greif"), a leader in industrial packaging products and services. The acquisition included seven converting plants across the United States, which are included in the Americas Paperboard Packaging reportable segment. For more information, see "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

In June 2020, the Company made the decision to close certain converting plants that were acquired from Greif. The Burlington, North Carolina converting facility and the Los Angeles, California converting facility were closed during 2020. For more information, see "Note 18 - Exit Activities" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

2019

On August 1, 2019, the Company acquired substantially all the assets of Artistic Carton Company ("Artistic"), a diversified producer of folding cartons and CRB. The acquisition included two converting plants located in Auburn, Indiana and Elgin, Illinois (included in the Americas Paperboard Packaging reportable segment) and one CRB mill located in White Pigeon, Michigan (included in the Paperboard Mills reportable segment). For more information, see "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

During 2019, the Company announced its plans to invest in a new CRB paper machine in Kalamazoo, Michigan. At the time of the announcement, the Company expected to close two of its smaller CRB Mills in 2022 in order to remain capacity neutral. During the third quarter of 2021, the Company decided to continue to operate one of the two original smaller CRB mills at least through 2022. For more information, see "Note 18 - Exit Activities" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Share Repurchases and Dividends

On January 28, 2019, GPHC's board of directors authorized an additional share repurchase program to allow GPHC to purchase up to \$500 million of GPHC's issued and outstanding shares of common stock through open market purchases, privately negotiated transactions and Rule 10b5-1 plans (the "2019 share repurchase program"). A previous \$250 million share repurchase program was authorized on January 10, 2017 (the "2017 share repurchase program").

Share repurchases are reflected as a reduction of common stock for the par value of the shares, with any excess of share repurchase price over par value allocated between capital in excess of par value and accumulated deficit.

The Company did not repurchase any shares of its common stock under the 2019 share repurchase program for the year ended December 31, 2021.

The following presents GPHC's share repurchases for the years ended December 31, 2020, and 2019:

<i>Amount repurchased in millions</i>	Amount Repurchased	Number of Shares Repurchased	Average Price
2020	\$ 316	23,420,010	\$ 13.48
2019	\$ 128	10,191,257 ^(a)	\$ 12.55

^(a) Includes 7,400,171 shares under the 2017 share repurchase program thereby completing that program.

At December 31, 2021, GPHC had approximately \$147 million of share repurchase authority remaining under the 2019 share repurchase program.

During 2021 and 2020, GPHC paid cash dividends of \$87 million and \$85 million, respectively.

Products

The Company has three reportable segments as follows:

Paperboard Mills includes the eight North American paperboard mills that produce primarily CRB, CUK, and SBS, which is consumed internally to produce paperboard packaging for the Americas and Europe Packaging segments. The remaining paperboard is sold externally to a wide variety of paperboard packaging converters and brokers.

Americas Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to Consumer Packaged Goods ("CPG") companies, and cups, lids and food containers sold primarily to foodservice companies and Quick-Service Restaurants ("QSR") serving the food, beverage, and consumer product markets in the Americas.

Europe Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to CPG companies serving the food, beverage and consumer product markets including healthcare and beauty primarily in Europe.

The Company operates in three geographic areas: the Americas, Europe and Asia Pacific.

For reportable segment and geographic area information for each of the last three fiscal years, see "Note 15 - Business Segment and Geographic Area Information" in the Notes to Consolidated Financial Statements included herein under "Item 8. Financial Statements and Supplementary Data."

Paperboard Packaging

The Company's paperboard packaging products deliver brand, marketing, sustainability and performance benefits at a competitive cost. The Company supplies paperboard cartons, carriers and containers designed to protect and hold products while providing:

- Convenience through ease of carrying, storage, delivery, dispensing of product and food preparation for consumers;
- A smooth surface printed with high-resolution, multi-color graphic images that help improve brand awareness and visibility of products on store shelves; and
- Durability, stiffness and wet and dry tear strength; leak, abrasion and heat resistance; barrier protection from moisture, oxygen, oils and greases, as well as enhanced microwave heating performance.

The Company provides a wide range of sustainable paperboard packaging solutions for the following end-use markets:

- Beverage, including beer, seltzer, soft drinks, energy drinks, teas, water and juices;
- Food, including cereal, desserts, frozen, refrigerated and microwavable foods, pet food and health/beauty;
- Prepared food and drinks, including snacks, quick-serve food and drinks for restaurants and food service providers;
- Household products, including dishwasher and laundry detergent, health care and beauty aids, and tissues and papers; and
- Air filter frames.

The Company's packaging applications meet the needs of its customers for:

Strength Packaging. The Company's products provide sturdiness to meet a variety of packaging, handling, and delivery needs, including tear and wet strength, puncture resistance, durability and compression strength (providing the ability to ship products in their own branded carton and stacking strength to meet store display packaging requirements).

Promotional Packaging. The Company offers a broad range of promotional packaging options that help differentiate its customers' products in the marketplace. These promotional enhancements improve brand awareness and visibility on store shelves.

Convenience and Cooking Packaging. These packaging solutions improve package usage and food preparation:

- Beverage multiple-packaging — multi-packs for beer, soft drinks, energy drinks, teas, water and juices;
- Active microwave technologies — packages that improve the heating and browning of foods in the microwave; and
- Easy opening and closing features — dispensing features, pour spouts and sealable liners.

Barrier Packaging. The Company provides packages that protect against moisture, temperature (hot and cold), grease, oil, oxygen, sunlight, insects and other potential product-damaging factors.

Paperboard Mills and Folding Carton Facilities

The Company produces paperboard at its mills; prints, cuts, folds, and glues ("converts") the paperboard into folding cartons and containers at its converting plants; and designs and manufactures specialized, proprietary packaging machines that package bottles and cans and, to a lesser extent, non-beverage consumer products. The Company also installs its packaging machines at customer plants and provides support, service and advanced performance monitoring of the machines.

The Company offers a variety of laminated, coated and printed packaging structures that are produced from its CRB, CUK and SBS mills, as well as other grades of paperboard that are purchased from third-party suppliers.

Below is the production at each of the Company's paperboard mills during 2021:

Location	Product	# of Machines	2021 Net Tons Produced
West Monroe, LA	CUK	2	931,713
Macon, GA	CUK	2	738,981
Texarkana, TX	SBS	2	583,910
Augusta, GA	SBS	2	585,164
Kalamazoo, MI	CRB	2	508,546
Battle Creek, MI	CRB	2	219,058
Middletown, OH	CRB	1	178,863
East Angus, Québec	CRB	1	99,568

The Company consumes most of its coated board output in its converting operations, which is an integral part of the customer value proposition. In 2021, approximately 72% of combined mill sales of CRB, CUK and SBS was consumed internally.

CUK Production. The Company is the largest of four worldwide producers of CUK. CUK is manufactured from pine-based wood fiber and is a specialized high-quality grade of coated paperboard with excellent wet and dry tear strength characteristics and printability for high resolution graphics that make it particularly well-suited for a variety of packaging applications. Both wood and recycled fibers are pulped, formed on paper machines, and clay-coated to provide an excellent printing surface for superior quality graphics and appearance characteristics.

SBS Production. The Company is one of the largest North American producers of SBS. SBS is manufactured from bleached pine and hardwood-based wood fiber and is the highest quality paperboard substrate with excellent wet and dry strength characteristics and superior printability for high-end packaging. Both wood and recycled fibers are pulped, formed on paper machines, and clay-coated to provide an excellent printing surface for superior quality graphics and appearance characteristics. SBS is also coated with resin for wet strength liquid and food packaging end uses.

CRB Production. The Company is the largest North American producer of CRB. CRB is manufactured entirely from recycled fibers, primarily old corrugated containers (“OCC”), doubled-lined kraft cuttings from corrugated box plants (“DLK”), old newspapers (“ONP”), and box cuttings. The recycled fibers are re-pulped, formed on paper machines, and clay-coated to provide an excellent printing surface for superior quality graphics and appearance characteristics.

The Company converts CRB, CUK and SBS, as well as other grades of paperboard, into cartons and containers at converting plants the Company operates in various locations globally, including a converting plant associated with the Company’s joint venture in Japan, contract converters and at licensees outside the United States (“U.S.”). The converting plants print, cut, fold and glue paperboard into cartons and containers designed to meet customer specifications.

Joint Venture

The Company, through its GPIL subsidiary, is a party to a Japanese joint venture, Rengo Riverwood Packaging, Ltd., in which it holds a 50% ownership interest. The joint venture agreement covers CUK supply, use of proprietary carton designs and marketing and distribution of packaging systems.

Sales and Marketing

The Company markets its products principally to multinational beverage, food, Quick-Service Restaurants (“QSR”), health/beauty and other well-recognized consumer product companies. The beverage companies include Anheuser-Busch, Inc., MillerCoors LLC, PepsiCo, Inc. and The Coca-Cola Company, among others. Consumer product customers include Kraft Heinz Company, General Mills, Inc., Nestlé USA, Inc., Kellogg Company, Kimberly-Clark Corporation, among others. Quick-Service Restaurants (“QSR”) customers include ChickFil-A, McDonald’s, Wendy’s, Panda Express, Dairy Queen, Chipotle, Panera and KFC and health/beauty include GlaxoSmithKline, Bayer, Johnson & Johnson, Abbott, Novartis, L’Oréal Proctor and Gamble, and Colgate. The Company also sells paperboard in the open market to independent and integrated paperboard converters.

Sales of the Company’s principal products is primarily accomplished through sales offices in the U.S., Australia, Brazil, China, France, Germany, Italy, Japan, Mexico, Spain, the Netherlands and the United Kingdom, and, to a lesser degree, through broker arrangements with third parties.

During 2021, 2020 and 2019, the Company did not have any one customer that represented 10% or more of its net sales.

Competition

Although a relatively small number of large competitors hold a significant portion of the paperboard packaging market, the Company’s business is subject to strong competition. The Company and WestRock Company (“WestRock”) are the two major CUK producers in the U.S. Internationally, The Klabin Company in Brazil and Stora Enso in Sweden produce similar grades of paperboard.

In non-beverage consumer packaging and foodservice, the Company’s paperboard competes with WestRock’s CUK, as well as CRB and SBS from numerous competitors, and, internationally, folding boxboard and white-lined chip. There are a large number of producers in the paperboard markets. Suppliers of paperboard compete primarily on the basis of price, strength and printability of their paperboard, quality and service.

In beverage packaging, cartons made from CUK compete with substitutes such as plastics and corrugated packaging for packaging glass or plastic bottles, cans and other primary containers. Although plastics and corrugated packaging may be priced lower than CUK, the Company believes that cartons made from CUK offer advantages over these materials in areas such as distribution, brand awareness, carton designs, package performance, package line speed, sustainability (particularly recyclability) and design flexibility.

Raw Materials

The paperboard packaging produced by the Company comes from pine and hardwood trees and recycled fibers. Pine pulpwood, hardwood pulp, paper and recycled fibers (including DLK, OCC and ONP) and energy used in the manufacture of paperboard, as well as poly sheeting, plastic resins and various chemicals used in the coating of paperboard, represent the largest components of the Company’s variable costs of paperboard production.

For the West Monroe, LA, Macon, GA, Texarkana, TX, and Augusta, GA mills, the Company relies on private landowners and the open market for all of its pine and hardwood pulp and recycled fiber requirements, supplemented by clippings that are obtained from its converting operations. The Company believes that adequate supplies from both private landowners and open market fiber sellers currently are available in close proximity to meet its fiber needs at these mills.

The paperboard grades produced at the Kalamazoo, MI, Battle Creek, MI, Middletown, OH, and East Angus, Quebec mills are made from 100% recycled fiber. The Company procures its recycled fiber from external suppliers and internal converting operations. The market price of each of the various recycled fiber grades fluctuates with supply and demand. The Company's internal recycled fiber procurement function enables the Company to pay lower prices for its recycled fiber needs given the Company's highly fragmented supplier base. The Company believes there are adequate supplies of recycled fiber to serve its mills.

In North America, the Company also converts a variety of other paperboard grades, in addition to paperboard that is supplied to its converting operations from its own mills. The Company purchases such paperboard requirements, including additional CRB and SBS, from outside vendors. The majority of external paperboard purchases are acquired through long-term arrangements with other major industry suppliers. The Company's European converting plants consume CUK supplied from the Company's mills and also convert other paperboard grades such as white-lined chip and folding box board purchased from external suppliers.

Energy

Energy, including natural gas, fuel, oil and electricity, represents a significant portion of the Company's manufacturing and distribution costs. The Company has entered into contracts designed to manage risks associated with future variability in cash flows and price risk related to future energy cost increases for a portion of its natural gas requirements at its U.S. mills. The Company's hedging program for natural gas is discussed in "*Note 10 - Financial Instruments, Derivatives and Hedging Activities*" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Seasonality

The Company's net sales, income from operations and cash flows from operations are subject to moderate seasonality, with demand usually increasing in the late spring through early fall due to increases in demand for beverage and food products.

Research and Development

The Company's research and development team works directly with its sales, marketing and consumer insights personnel to understand long-term consumer and retailer trends and create relevant new packaging. These innovative solutions provide customers with differentiated packaging to meet consumer preferences. The Company's development efforts include, but are not limited to, developing sustainable packaging to replace plastic packaging, extending the shelf life of customers' products; reducing production and waste costs; enhancing the heat-managing characteristics of food packaging; improving the sturdiness and compression strength of packaging to allow goods to ship in their own branded container and to meet store display needs; and refining packaging appearance through new printing techniques and materials.

Sustainability represents one of the strongest trends in the packaging industry and the Company focuses on developing fiber-based packaging solutions that are more recyclable and help customers achieve their sustainability goals. The Company's strategy is to combine functionality, innovation of packaging design with a focus on packaging end of life to create more circular packaging solutions for customers and consumers.

For more information on research and development expenses see "*Note 1 - Nature of Business and Summary of Significant Accounting Policies*" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Patents and Trademarks

As of December 31, 2021, the Company had a large patent portfolio, presently owning, controlling or holding rights to more than 2,700 U.S. and foreign patents, with more than 600 U.S. and foreign patent applications currently pending. The Company's patent portfolio consists primarily of patents relating to packaging machinery, manufacturing methods, structural carton designs, active microwave packaging technology and barrier protection packaging. These patents and processes are significant to the Company's operations and are supported by trademarks such as Fridge Vendor™, IntegraPak™, KeelClip™, MicroFlex-Q™, MicroRite™, Quilt Wave™, Qwik Crisp™, Tite-Pak™, and Z-Flute™. The Company takes significant steps to protect its intellectual property and proprietary rights.

Human Capital

We believe that the Company's greatest asset is our workforce. Solving day-to-day operational and business challenges in order to drive positive results for stakeholders requires attracting, developing, and retaining talented individuals with different skills, ideas, and experiences. Our Vision 2025 outlines how we will be better stewards of our planet, supporters of our people, and allies to our partners, all while generating returns for our stakeholders. Our employees play a crucial role in achieving our Vision 2025 and are guided by our shared values and growth behaviors.

Our people are one of the pillars of our Vision 2025 and we strive to engage employees in a high-performance culture. In order to achieve this, we must attract, develop, and retain our talented workforce by providing opportunities for growth and a conducive atmosphere. Our talent acquisition, development, succession and diversity and inclusion strategies are all critical components of the multi-year plan for our people. We will continue to invest in capability development areas that serve as a competitive advantage for the Company such as GPI University, which launched in 2021 and serves as a platform for all employees to access relevant training and development resources on topics related to technical skills and leadership effectiveness. Also, central to capability development and talent management is challenging our team with new experiences that will enhance their leadership skills and technical capabilities. We will also continuously improve our processes and use technology to promote safety, automate our manufacturing processes, and achieve greater efficiencies utilizing processes such as Lean Six Sigma.

We are evolving the capabilities of our workforce as our business and strategy change. We have invested in innovation, research and development, and digital capabilities to allow us to capture sustainability supported organic growth. As our business continues to change, we will adapt our workforce and invest in employees to ensure that we have the necessary human capital capabilities in place to support our strategy.

As of December 31, 2021, the Company had approximately 25,000 employees worldwide based in 130 locations in 26 different countries around the world. Approximately 69% of our employees are in the United States and 31% are in Europe and rest of world. Worldwide, approximately 32% were represented by labor unions and covered by collective bargaining agreements or covered by works councils in Europe. As of December 31, 2021, 541 of the Company's employees were working under expired contracts, which are currently being negotiated, and none were covered under collective bargaining agreements that expire within one year. The Company considers its employee relations to be satisfactory.

Employee Health and Safety

Maintaining a safe work environment is vital to the Company, and we are committed to the health, safety and wellness of our employees. Our Recorded Incident Rate, which is the rate of workplace injuries per 100 full-time employees, is approximately 1.18, and we work to maintain a safety performance rating that outperforms the industry average. We seek to achieve an injury-free workplace through various safety initiatives and programs.

In response to the COVID-19 pandemic, we implemented significant changes that we determined were in the best interest of our employees, as well as the communities in which we operate, while continuing to service our customers. We quickly implemented remote working, enhanced safety measures for employees continuing critical, on-site work at our facilities such as walk-through temperature scanners, plexiglass barriers between employees, and other methods of encouraging social distancing, and paid employees during necessary quarantines due to COVID-19. We will continue to monitor local COVID-19 conditions and adjust our practices to ensure the health and safety of our employees.

Diversity and Inclusion

We believe that a diverse and inclusive working environment encourages creativity, innovation, and collaboration and that a diverse and inclusive culture propels our ability to serve our global customers and communities. Our commitment to diversity and inclusion is reflected in the definitions of our core values, which dictate our behavioral norms. The Compensation and Management Development Committee of our Board of Directors annually reviews the processes and practices related to workforce diversity and inclusion programs to ensure continued equitable treatment of all employees and a culture of inclusion. Our goal moving forward is to not only mirror the diversity of the communities where we operate, but also to excel in unlocking the potential that a diverse workforce can generate.

Community Engagement

Building connections between our employees, their families, and our communities creates a more meaningful, fulfilling and enjoyable workplace. Our employees around the world dedicate their time and talents to improve the communities in which we live and work. Driven by our core values, making a difference for our customers, our consumers, and our community is at the root of our community engagement strategy. The Company focuses on three pillars that guide the strategy for our community service activities and philanthropic commitments: (1) putting food on the table, (2) preserving the environment, and (3) investing in education.

Environmental and Regulatory Matters

The Company is subject to a broad range of foreign, federal, state and local environmental, employee health and safety, and other governmental regulations and employs a team of professionals in order to maintain compliance at each of its facilities. In 2021, the Company spent \$9 million of capital on projects to maintain compliance with environmental laws, regulations and the Company's permits granted thereunder. In 2022 and 2023, the Company estimates it will spend \$10 million and \$47 million respectively, for such projects, primarily the waste water treatment system upgrades at the Augusta, Georgia and Texarkana, Texas mills. For additional information on such regulation and compliance, see "Environmental Matters" in "Item 7., Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Note 14 - Environmental and Legal Matters" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Climate change is an important global issue that presents both challenges and opportunities for the Company and its communities. Climate change challenges for the Company are likely to be driven by changes in the physical climate where our facilities are located as well as changes in laws and regulations, including restrictions on greenhouse gas (GHG) emissions, cap and trade systems, and taxes on GHG emissions, fuel, and energy. Climate change also presents opportunities for the Company as it drives growth in demand for lower-carbon footprint products and manufacturing technologies. We believe the Company is well-positioned to take advantage of opportunities that may arise from increased consumer demand for and/or legislation mandating or incentivizing the use of products and technologies necessary to achieve a lower-carbon, lower-waste economy. Our costs of complying with complex environmental laws and regulations, as well as voluntary certification and disclosure programs, are significant and will continue to be significant for the foreseeable future. These laws and regulations and stakeholder driven voluntary certification and disclosure programs could become more stringent over time, which could result in significant additional compliance costs. Additionally, significant national or state differences in the imposition and enforcement of such laws and regulations could present competitive challenges in a global marketplace. By tracking and taking action to reduce our GHG emissions and energy use through efficiency programs and focused GHG management efforts, we can decrease the potential future impact of these regulatory matters.

The Company's Core Values underpin our commitment to our stakeholders and our strategy to deliver sustainable, recyclable packaging solutions. Our Vision 2025 outlines our plans for how we will grow the Company and the returns we expect to generate, all while prioritizing and focusing on our people and the planet. These goals are designed to position us for sustainably-achieved, long-term earnings growth.

Available Information

The Company's website is located at <http://www.graphicpkg.com>. The Company makes available, free of charge through its website, its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after such materials are electronically filed or furnished to the Securities and Exchange Commission (the "SEC"). The Company also makes certain investor presentations and access to analyst conference calls, as well as certain environmental, social, and governance information available through its website. The information contained or incorporated into the Company's website is not a part of this Annual Report on Form 10-K.

The SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers like the Company that file electronically with the SEC at <http://www.SEC.gov>.

ITEM 1A. RISK FACTORS

Our operations and financial results could be affected by various risks, many of which are beyond our control. The following risks could affect (and in some cases have affected) the Company's actual results and could cause such results to differ materially from current estimates or expectations:

Industry Risks

The Company's financial results could be adversely impacted if there are significant increases in prices for raw materials, energy, transportation and other necessary supplies and services, and the Company is unable to raise prices or improve productivity to reduce costs.

Increases in the costs of raw materials, including secondary fiber, petroleum-based materials, energy, wood, transportation and other necessary goods and services, could have an adverse effect on the Company's financial results. Paper manufacturing processes require significant energy and raw materials, the costs of which are subject to worldwide supply and demand factors, supply chain disruptions that can affect availability and result in increased prices, as well as trade regulations and tariffs. Because negotiated sales contracts and the market largely determine the pricing for its products, the Company is at times limited in its ability to raise prices and pass through to its customers any inflationary or other cost increases that the Company may incur.

The Company uses productivity improvements and other initiatives to reduce costs, offset inflation and maintain adequate raw material supplies. These actions include global continuous improvement initiatives that use best-in-class industry methodologies and statistical process control to help design and manage many types of activities, including planning, procurement, production and maintenance. These efforts result not only in cost reductions, but also build resilience in the overall supply chain. The Company's ability to realize anticipated savings from these improvements is subject to significant operational, economic and competitive uncertainties and contingencies, many of which are beyond the Company's control. If the Company cannot successfully implement cost savings plans, it may not be able to continue to compete successfully against other manufacturers. In addition, any failure to generate the anticipated efficiencies and savings could adversely affect the Company's financial results.

Changes in consumer buying habits and preferences for products could have an effect on our sales volumes.

Changing consumer dietary habits and preferences have impacted sales growth for many of the food and beverage products the Company packages. Preferences are constantly changing based on, among other factors, convenience, cost and health considerations, as well as environmental and social concerns. If these trends continue and the Company is unable to adapt to the trends, then the Company's financial results could be adversely affected.

Competition and product substitution could have an adverse effect on the Company's financial results.

The Company competes with other paperboard manufacturers and carton converters, both domestically and internationally. The Company's products compete with those made from other manufacturers' CUK, as well as SBS and CRB, and other board substrates. Substitute products include plastic, shrink film, corrugated containers, and other packaging options. Product substitution may occur in response to price, quality and service issues, as well as environmental and social concerns, such as pressure to reduce packaging waste by switching to reusable containers versus single-use packaging options.

In addition, to the extent the Company's operations are subject to labor, safety and climate change regulations and requirements not stringently imposed in the states and countries in which our competitors operate, our competitors could gain cost or other competitive advantages. While the Company has long-term relationships with many of its customers, the underlying contracts may be re-bid or renegotiated from time to time, and the Company may not be successful in renewing such contracts on favorable terms or at all. The Company works to maintain market share through efficiency, product innovations and strategic sourcing to its customers; however pricing and other competitive pressures, such as providing the lowest-carbon footprint packaging solution or delivering on GHG emissions reduction targets, may occasionally result in the loss of a customer relationship.

Operational Risks

The Company's operations and financial results could be adversely impacted by global events outside the Company's control, such as the current COVID-19 pandemic and areas of political unrest.

As a result of global events such as the current COVID-19 pandemic and political unrest in eastern Europe and elsewhere, there could be unpredictable disruptions to the Company's operations that could limit production, reduce its future revenues and negatively impact the Company's financial condition. These global events may result in supply chain and transportation disruptions to and from our facilities and affected employees could impact the Company's ability to operate its facilities and distribute products to its customers in a timely fashion. In addition, these global events may result in extreme volatility and disruptions in the capital and credit markets as well as widespread furloughs and layoffs for workers in the broader economy. This volatility and loss of employment may negatively impact consumer buying habits, which could adversely affect the Company's financial results.

The Company's future growth and financial results could be adversely impacted if the Company is unable to identify strategic acquisitions and to successfully integrate the acquired businesses.

The Company has made a significant number of acquisitions in recent years, including the AR Packaging acquisition and the NACP Combination, and expects to make additional strategic acquisitions in the future as part of its overall growth strategy. The Company's ability to continue to make strategic acquisitions from time to time and to integrate the acquired businesses successfully, including obtaining anticipated cost savings or synergies and expected operating results within a reasonable period of time, is an important factor in the Company's future growth. If the Company is unable to properly estimate, account for and realize the expected revenue and cash flow growth and other benefits from its acquisitions, the Company may be required to spend additional time or money on integration efforts that would otherwise have been spent on the development and expansion of its business.

The Company's information technology systems could suffer interruptions, failures or breaches and our business operations could be disrupted, adversely affecting results of operations and the Company's reputation.

The Company's information technology systems, some of which are dependent on services provided by third parties, serve an important role in the operation of the business. These systems could be damaged or cease to function properly due to any number of causes, such as catastrophic events, power outages, security breaches, computer viruses or cyber-based attacks. The Company has contingency plans in place to prevent or mitigate the impact of these events, however, if they are not effective on a timely basis, business interruptions could occur which may adversely impact results of operations.

The Company has been, and likely will continue to be, subject to computer hacking, acts of vandalism or theft, malware, ransomware, computer viruses or other malicious codes, phishing, employee error or malfeasance, catastrophes, unforeseen events or other cyber-attacks. To date, the Company has seen no material impact on our business or operations from these attacks or events. Any future significant compromise or breach of data security, whether external or internal, or misuse of customer, associate, supplier or Company data, could result in significant costs, interrupted operations, lost sales, fines, lawsuits, and damage to the Company's reputation. However, the ever-evolving threats mean the Company and its third-party service providers and vendors must continually evaluate and adapt their respective systems and processes and overall security environment, as well as those of any companies acquired. There is no guarantee that these measures will be adequate to safeguard against all data security breaches, system compromises or misuses of data. In addition, the regulatory environment related to information security, data collection and use, and privacy is becoming increasingly rigorous, with new and constantly changing requirements applicable to the Company's business. Compliance with such requirements could also result in additional costs.

The Company could experience material disruptions at our facilities or increases in the cost of insurance.

Although the Company takes appropriate measures to minimize the risk and effect of material disruptions to the business conducted at our facilities, natural disasters such as hurricanes, tornadoes and other extreme weather events, floods, droughts and fires, all of which may be exacerbated by climate change, as well as other unexpected disruptions such as the unavailability of critical raw materials, power outages and equipment breakdowns or failures can reduce production and increase manufacturing costs. These types of disruptions, whether caused by climate change or other events, could materially adversely affect our earnings, depending upon the duration of the disruption and our ability to shift business to other facilities or find other sources of materials or energy. In addition, given the Company's integrated supply chain, managing board supply and properly planning for mill outages and downtime must be integrated with the converting plants' forecasts. Any inability to do so could adversely affect the Company's financial results. Any losses due to these events may not be covered by our existing insurance policies, and insurance coverage may be subject to significant deductibles. The premiums for insurance coverage have recently increased and may continue to increase, along with the level of deductibles. In addition, the availability of some insurance coverage may decline due to insurance company losses from extensive property damage caused by natural disasters and increased cyber security breaches.

The Company may not be able to develop and introduce new products and adequately protect its intellectual property and proprietary rights, which could harm its future success and competitive position.

The Company works to increase market share and profitability through product innovation and the introduction of new products. The inability to develop new or better products that satisfy customer and consumer preferences in a timely manner may impact the Company's competitive position. The Company's future success and competitive position also depends, in part, upon its ability to obtain and maintain protection for certain proprietary carton and packaging machine technologies used in its value-added products, particularly those incorporating the Fridge Vendor, IntegraPak, KeelClip, MicroFlex-Q, MicroRite, Opti-Cycle, PaperSeal Slice and PaperSeal Wedge, Produce Pack, Quilt Wave, Qwik Crisp, Tite-Pak, and Z-Flute technologies. Failure to protect the Company's existing intellectual property rights may result in the loss of valuable technologies or may require it to license other companies' intellectual property rights. It is possible that any of the patents owned by the Company may be invalidated, rendered unenforceable, circumvented, challenged or licensed to others or any of its pending or future patent applications may not be issued within the scope of the claims sought by the Company, if at all. Further, others may develop technologies that are similar or superior to the Company's technologies, duplicate its technologies or design around its patents, and steps taken by the Company to protect its technologies may not prevent misappropriation of such technologies.

The Company's capital spending may not achieve the desired benefits, which could adversely impact future financial results.

The Company invests significant amounts of cash each year on capital projects which have expected returns to the Company. The Company's ability to execute on these projects in order to achieve planned outcomes, including obtaining expected returns and strategic long-term goals within a reasonable period of time, is an important factor in the Company's financial results and commitments to the market. As these investments start up, the Company may experience unanticipated business disruptions and not achieve the desired benefits or timelines. In addition, the Company's acquisitions may require more capital than expected to achieve synergies or expected operating results. Additional spending and unachieved benefits may adversely affect the Company's cash flow and results of operations.

The Company may face a shortage of a skilled workforce at its facilities.

The Company's ability to maintain or expand its business depends on attracting, training and retaining a skilled workforce. Changing demographics and workforce trends may result in a loss of knowledge and skills as experienced workers retire or resign. The Company may incur higher costs to hire and retain new workers, and the failure to attract and retain sufficient skilled workers may result in operational inefficiencies or require additional capital investments to reduce reliance on labor, which may adversely impact the Company's results.

The Company is subject to the risks of doing business in foreign countries.

The Company has converting plants and one paper mill in 18 countries outside of the U.S. and sells its products worldwide. For 2021, before intercompany eliminations, net sales from operations outside of the U.S. represented approximately 23% of the Company's net sales. The Company's revenues from foreign sales fluctuate with changes in foreign currency exchange rates. The Company pursues a currency hedging program in order to reduce the impact of foreign currency exchange fluctuations on financial results. In addition, at December 31, 2021, approximately 30% of the Company's total assets were denominated in currencies other than the U.S. dollar.

The Company is also subject to the following significant risks associated with operating in foreign countries:

- Export compliance;
- Compliance with and enforcement of environmental, health and safety and labor laws and other regulations of the foreign countries in which the Company operates;
- Difficulties moving funds from certain countries back to the U.S.;
- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries; and
- Imposition of new or increases in capital investment requirements and other financing requirements by foreign governments.

Financial Risks

The Company's indebtedness may adversely affect its financial condition and its ability to react to changes in its business.

As of December 31, 2021, the Company had an aggregate principal amount of \$5,831 million of outstanding debt.

Because of the Company's debt level, a portion of its cash flows from operations is dedicated to payments on indebtedness and the Company's ability to obtain additional financing for working capital, capital expenditures, acquisitions or general corporate purposes may be restricted in the future.

Additionally, the Company's Fourth Amended and Restated Credit Agreement (as amended, the "Current Credit Agreement") and the indentures governing the 4.875% Senior Notes due 2022, 0.821% Senior Notes due 2024, 4.125% Senior Notes due 2024, 1.512% Senior Notes due 2026, 4.75% Senior Notes due 2027, 3.50% Senior Notes due 2028, 3.50% Senior Notes due 2029, 2.625% Senior Notes due 2029 and 3.75% Senior Notes due 2030 (the "Indentures") may prohibit or restrict, among other things, the disposal of assets, the incurrence of additional indebtedness (including guarantees), the incurrence of liens, payment of dividends, share repurchases, the making of acquisitions and other investments and certain other types of transactions. These restrictions could limit the Company's flexibility to respond to changing market conditions and competitive pressures. The debt obligations and restrictions may also leave the Company more vulnerable to a downturn in general economic conditions or its business, or unable to carry out capital expenditures that are necessary or important to its growth strategy and productivity improvement programs.

As of December 31, 2021, approximately 31% of the Company's debt is subject to variable rates of interest and exposes the Company to increased debt service obligations in the event of increased market interest rates.

Legal and Regulatory Risks

The Company is subject to environmental, health and safety laws and regulations, and costs to comply with such laws and regulations, or any liability or obligation imposed under new laws or regulations, could negatively impact its financial condition and results of operations.

The Company is subject to a broad range of foreign, federal, state and local environmental, health and safety laws and regulations, including those governing GHG emissions and other discharges to air, soil and water, the management, treatment and disposal of hazardous substances, the investigation and remediation of contamination resulting from releases of hazardous substances, waste disposal, recycling of packaging, extended producer responsibilities, and the health and safety of employees. These laws and regulations, particularly those that relate to GHG emissions, are evolving and expected to become more stringent over time, which could result in significant additional compliance costs (such as the installation or modification of emission control equipment), increased costs of purchased energy or other raw materials, increased transportation costs, restrictions on our operations, or additional costs associated with air and water emissions. The Company is tracking and taking actions to reduce our GHG and other air and water emissions to decrease the potential future impact of these regulatory matters. However, the Company cannot currently assess the impact that future emission standards, climate control initiatives, regulation changes and enforcement practices will have on the Company's operations and capital expenditure requirements.

Environmental liabilities and obligations may result in significant costs, which could negatively impact the Company's financial position, results of operations or cash flows. See "Note 14 - Environmental and Legal Matters" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Headquarters

The Company leases its principal executive offices in Atlanta, GA.

Operating Facilities

A listing of the principal properties owned or leased and operated by the Company is set forth below. The Company's buildings are adequate and suitable for the business of the Company and have sufficient capacity to meet current requirements. The Company also leases certain smaller facilities, warehouses and office space throughout the U.S. and in foreign countries from time to time.

Location	Related Products or Use of Facility
Mills:	
Augusta, GA	SBS
Battle Creek, MI	CRB
East Angus, Québec	CRB
Kalamazoo, MI	CRB
Macon, GA	CUK
Middletown, OH	CRB
Texarkana, TX	SBS
West Monroe, LA	CUK, Research and Development
Other:	
Atlanta, GA ^(a)	Headquarters, Research and Development, Packaging Machinery and Design
Concord, NH ^(a)	Research and Development, Design Center
Crosby, MN	Packaging Machinery Engineering, Design and Manufacturing
Louisville, CO ^(a)	Research and Development
Menomonee Falls, WI	Foodservice Rebuild Center

North American Converting Plants:

Atlanta, GA^(a)
Auburn, IN
Carol Stream, IL
Centralia, IL
Charlotte, NC
Chicago, IL^(a)
Clarksville, TN
Cobourg, Ontario^(a)
Elgin, IL
Elk Grove, IL^{(a)(b)}
Fort Smith, AR^(b)
Gordonsville, TN^(a)
Grand Rapids, MI
Gresham, OR^(a)
Hamel, MN
Irvine, CA
Kalamazoo, MI
Kendallville, IN
Kenton, OH
Kingston Springs, TN
Lancaster, TX
Lawrenceburg, TN
Lebanon, TN^(a)
Lowell, MA
Lumberton, NC
Marietta, GA
Marion, OH
Memphis, TN
Mississauga, Ontario^{(a)(b)}
Mitchell, SD
Monroe, LA^(a)
Monterrey, Mexico^(a)
New Albany, IN^(b)
Newton, IA
North Portland, OR
Norwalk, OH
Omaha, NE
Oroville, CA^(a)
Pacific, MO
Perry, GA
Pineville, NC
Pittston, PA
Prosperity, SC
Queretaro, Mexico^(a)
Randleman, NC
Shelbyville, IL
Solon, OH
St.-Hyacinthe, Québec^(a)
St. Paul, MN
Staunton, VA
Sturgis, MI
Tijuana, Mexico^(a)
Tuscaloosa, AL
Valley Forge, PA
Vancouver, WA^(a)
Visalia, CA
Wausau, WI
Wayne, NJ
West Monroe, LA^(b)
Winnipeg, Manitoba
Winston Salem, NC
Xenia, OH^(a)

International Converting Plants:

Aachen, Germany
Auckland, New Zealand^(a)
Augsburg, Germany
Bawen, Indonesia
Bekasi, Indonesia
Berlin, Germany^(b)
Bremen, Germany
Bristol, United Kingdom
Cambridge, United Kingdom^(a)
Cholet, France^(a)
Coalville, United Kingdom^(a)
Frankfurt, Germany^(a)
Gateshead, United Kingdom^(a)
Graz, Austria
Halmstad, Sweden^(a)
Hannover, Germany
Highbridge, United Kingdom^(a)
Hoogerheide, Netherlands
Ibadan, Nigeria
Igualeda, Spain
Ingerois, Finland^(a)
Jundiai, Sao Paulo, Brazil
Kanfanar, Croatia
Krakow, Poland
Leeds, United Kingdom
Lund, Sweden^{(a)(b)}
Magdeburg, Germany^(a)
Maliaño, Spain
Masnieres, France^(a)
Melbourne, Australia^(a)
Munich, Germany^(a)
Newcastle Upon Tyne, United Kingdom^(a)
Portlaoise, Ireland^(a)
Poznan, Poland^(b)
Requejada, Spain
Rotherham, United Kingdom^(a)
Sneek, Netherlands
St. Gallen, Switzerland^(a)
St. Petersburg, Russia^(a)
Sydney, Australia^(a)
Tabasalu, Estonia
Tibro, Sweden
Timashevsk, Russia^(a)
Winsford, United Kingdom^(a)

^(a) Leased facility.

^(b) Multiple facilities in this location.

ITEM 3. LEGAL PROCEEDINGS

The Company is a party to a number of lawsuits arising in the ordinary conduct of its business. Although the timing and outcome of these lawsuits cannot be predicted with certainty, the Company does not believe that disposition of these lawsuits will have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows. See "Note 14 - Environmental and Legal Matters" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Pursuant to General Instruction G.(3) of Form 10-K, the following list is included as an unnumbered item in Part I of this Report in lieu of being included in the definitive proxy statement that will be filed within 120 days after December 31, 2021.

Michael P. Doss, 55, is the President and Chief Executive Officer of Graphic Packaging Holding Company. He was elected to the Board of Directors on May 20, 2015. Prior to January 1, 2016, Mr. Doss held the position of President and Chief Operating Officer from May 20, 2015 through December 31, 2015 and Chief Operating Officer from January 1, 2014 until May 19, 2015. Prior to these positions he served as the Executive Vice President, Commercial Operations of Graphic Packaging Holding Company. Prior to this Mr. Doss held the position of Senior Vice President, Consumer Packaging Division. Prior to March 2008, he had served as Senior Vice President, Consumer Products Packaging of Graphic Packaging Corporation since September 2006. From July 2000 until September 2006, he was the Vice President of Operations, Universal Packaging Division. Mr. Doss was Director of Web Systems for the Universal Packaging Division prior to his promotion to Vice President of Operations. Since joining Graphic Packaging International Corporation in 1990, Mr. Doss has held positions of increasing management responsibility, including Plant Manager at the Gordonsville, TN and Wausau, WI plants.

Mr. Doss serves on the Board of Directors for the American Forest & Paper Association, the Sustainable Forest Initiative, the Paper Recycling Coalition, the Atlanta Area Council of the Boy Scouts of America, Sealed Air Corporation, Metro Atlanta Chamber of Commerce, and the Woodruff Arts Center.

Stephen R. Scherger, 57, is the Executive Vice President and Chief Financial Officer of Graphic Packaging Holding Company. From October 1, 2014 through December 31, 2014, Mr. Scherger was the Senior Vice President – Finance. From April 2012 through September 2014, Mr. Scherger served as Senior Vice President, Consumer Packaging Division. Mr. Scherger joined Graphic Packaging Holding Company in April of 2012 from MeadWestvaco Corporation, where he served as President, Beverage and Consumer Electronics. Mr. Scherger was with MeadWestvaco Corporation from 1986 to 2012 and held positions including Vice President, Corporate Strategy; Vice President and General Manager, Beverage Packaging; Vice President and Chief Financial Officer, Papers Group, Vice President Asia Pacific and Latin America, Beverage Packaging, Chief Financial Officer Beverage Packaging and other executive-level positions.

Maggie Bidlingmaier, 51, joined Graphic Packaging Holding Company as the Executive Vice President and President, Americas business unit on January 28, 2022. Maggie was most recently President, Performance Solutions for Invista, a subsidiary of Koch Industries, Inc., where she held several positions and led numerous multimillion-dollar global businesses within the flooring, apparel and airbag fiber segments from 2014 to January 2022. Prior to that, she held global sales and marketing roles of increasing responsibility at Avery Dennison from 2007 to 2013.

Michael Farrell, 55, became the Executive Vice President, Mills Division of Graphic Packaging Holding Company in September 2018. Prior to that, he served as the Senior Vice President, Supply Chain from January to September 2018. Prior to January 2018, Mr. Farrell served as Vice President, Recycled Board Mills of Graphic Packaging International, Inc. and its predecessor companies from January 1, 2013; and Senior Manufacturing Manager of Graphic Packaging International, Inc. from October 28, 2009 until December 31, 2012. From December 11, 2008 until October 27, 2009, Mr. Farrell was the Manufacturing Manager of the West Monroe, Louisiana mill and from September 1, 2006 until December 10, 2008 he was the General Manager of the Middletown, Ohio mill.

Jean-Francois Roche, 55, is the Senior Vice President, Sales, of Graphic Packaging Holding Company. Prior to assuming his current position on January 5, 2022, Mr. Roche served as Senior Vice President and President, Europe, Middle East, and Africa from January 2020 to January 2022 and as Vice President, Global Accounts of Graphic Packaging International, LLC from October 2018 through December 2019. From April 2015 through December 2019, Mr. Roche also served as the Vice President, Sales, Europe Consumer Products. Mr. Roche joined Graphic Packaging in April 2015 from LGR Packaging where he served as Chief Sales and Marketing Officer. Prior to that Mr. Roche spent 25 years at A&R Packaging, a large Scandinavian-based multinational consumer packaging provider, working in positions of increasing responsibility culminating the position of Senior Vice President, Sales and Marketing. Mr. Roche also serves as the President of the European Carton Makers Association, Europe's folding carton industry association.

Lauren S. Tashma, 55, is the Executive Vice President, General Counsel and Secretary of Graphic Packaging Holding Company. She joined the Company in February 2014. Previously, Ms. Tashma served as Senior Vice President, General Counsel and Secretary of Fortune Brands Home & Security, Inc., where she led the legal, compliance and EHS functions. Prior to that, Ms. Tashma had various roles with Fortune Brands, Inc., including Vice President and Associate General Counsel.

Joseph P. Yost, 54 is the Executive Vice President and President, International of Graphic Packaging Holding Company. Prior to January 5, 2022, he served as Executive Vice President and President, Americas. Prior to January 5, 2017, Mr. Yost served as Senior Vice President, Global Beverage and Europe from September 1, 2015 to January 4, 2017, Senior Vice President, Europe from March 1, 2014 to August 31, 2015 and Senior Vice President, European Chief Integration Officer/Chief Financial Officer from February 2013 until February 2014. From 2009 until February 2013, Mr. Yost was the Senior Vice President, Supply Chain of Graphic Packaging Holding Company. From 2006 to 2009, he served as Vice President, Operations Support – Consumer Packaging for Graphic Packaging International, Inc. Mr. Yost has also served in the following positions: Director, Finance and Centralized Services from 2003 to 2006 with Graphic Packaging International, Inc. and from 2000 to 2003 with Graphic Packaging Corporation; Manager, Operations Planning and Analysis – Consumer Products Division from 1999 to 2000 with Graphic Packaging Corporation; and other management positions from 1997 to 1999 with Fort James Corporation.

PART II**ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

GPHC's common stock is traded on the New York Stock Exchange under the symbol "GPK."

On February 7, 2022, there were approximately 989 stockholders of record and approximately 54,788 beneficial holders of GPHC's common stock.

During 2021 and 2020, GPHC paid cash dividends of \$87 million and \$85 million, respectively.

On January 28, 2019, the Company's board of directors authorized an additional share repurchase program to allow the Company to purchase up to \$500 million of the Company's issued and outstanding shares of common stock through open market purchases, privately negotiated transactions and Rule 10b5-1 plans (the "2019 share repurchase program"). The previous \$250 million share repurchase program was authorized on January 10, 2017 (the "2017 share repurchase program").

Share repurchases are reflected as a reduction of common stock for the par value of the shares, with any excess of share repurchase price over par value allocated between capital in excess of par value and accumulated deficit.

The Company did not repurchase any shares of its common stock under the 2019 share repurchase program for the year ended December 31, 2021.

The following presents GPHC's share repurchases for the years ended December 31, 2020, and 2019:

<i>Amount repurchased in millions</i>	Amount Repurchased	Number of Shares Repurchased	Average Price
2020	\$ 316	23,420,010	\$ 13.48
2019	\$ 128	10,191,257 ^(a)	\$ 12.55

^(a) Includes 7,400,171 shares repurchased under the 2017 share repurchase program, thereby completing that program.

During the fourth quarter of 2021, pursuant to the 2019 share repurchase program, GPHC did not purchase any shares of its common stock.

2021

On January 14, 2021, the Company drew the \$425 million Incremental Term A-2 Facility (as hereinafter defined) and used the proceeds, together with cash on hand, to redeem its 4.75% Senior Notes due in 2021.

On March 8, 2021, GPIL completed a private offering of \$400 million aggregate principal amount of its 0.821% Senior Secured Notes due 2024 and \$400 million aggregate principal amount of its 1.512% Senior Secured Notes due 2026. The net proceeds were used by the Company to repay a portion of the outstanding borrowings under GPIL's term loan credit facilities, which is under its senior secured credit facility.

On April 1, 2021, GPIL entered into the Fourth Amended and Restated Credit Agreement (the "Fourth Amended and Restated Credit Agreement") to extend the maturity date of certain of its senior secured term loan facilities and senior secured revolving credit facilities and to amend certain other terms of the agreement, including revised debt covenants and collateral requirements. Under the terms of the agreement, \$975 million of the Company's senior secured term loan facilities remains outstanding. The Company added approximately \$400 million to its senior secured revolving credit facilities. \$550 million of the senior secured term loan facilities and all of the senior secured revolving credit facility loans continue to bear interest at a floating rate per annum ranging from LIBOR plus 1.25% to LIBOR plus 2.00%, determined using a pricing grid based upon the Company's consolidated total leverage ratio from time to time, and the maturity for these loans were extended from January 1, 2023 to April 1, 2026. \$425 million of the senior secured term loan facilities is a Farm Credit System incremental term loan (the "Incremental Term A-2 Facility") that bears interest at a fixed rate per annum equal to 2.67% and matures on its originally scheduled maturity date of January 14, 2028. As long as the Incremental Term A-2 Facility is outstanding, GPIL will be eligible to receive an annual patronage credit from the participating banks, which will be paid in cash and stock in the lead member bank. Patronage payable each year is variable and based on the individual financial performance of each of the member banks then participating in the loan.

On July 22, 2021, GPIL entered into an Incremental Facility Amendment to the Fourth Amended and Restated Credit Agreement for a second Farm Credit System incremental term loan (the "Incremental Term A-3 Facility"). The Incremental Term A-3 Facility is a senior secured term loan in the aggregate principal amount of \$250 million maturing on July 22, 2028. The Incremental Term A-3 Facility bears interest at a floating rate ranging from LIBOR plus 1.50% to LIBOR plus 2.25%, determined using a pricing grid based upon GPIL's consolidated leverage ratio. As long as the Incremental Term A-3 Facility is outstanding, GPIL will be eligible to receive an annual patronage credit from the participating banks, which will be paid in cash and stock in the lead member bank. Patronage payable each year is variable and based on the individual financial performance of each of the member banks then participating in the loan. The Incremental Term A-3 Facility is governed by the same covenants as are set forth in the Fourth Amended and Restated Credit Agreement and is secured by a first priority lien and security interest in certain assets of GPIL.

On July 23, 2021, GPIL entered into Amendment No. 1 to the Fourth Amended and Restated Credit Agreement and the Fourth Amended and Restated Guarantee and Collateral Agreement and Incremental Facility Amendment (the "First Amendment"). The First Amendment provided for a delayed draw term loan facility in an aggregate amount of €210 million and a €25 million increase to the existing Euro-denominated revolving credit facility. The new term loan facility was drawn on October 29, 2021, and bears interest at a floating rate ranging from LIBOR plus 1.125% to LIBOR plus 1.75%, determined using a pricing grid based upon GPIL's consolidated total leverage ratio from time to time. The new term loan facility is governed by the same covenants as set forth in the Fourth Amended and Restated Credit Agreement and is secured by a first priority lien and security interest in certain assets of GPIL.

On September 29, 2021, GPIL completed a \$100 million tax-exempt green bond transaction through the Michigan Strategic Fund's Private Activity Bond Program (the "Green Bonds"). The Green Bonds are special limited obligations of the Michigan Strategic Fund, as issuer, payable from and secured by a pledge of payments to be made by GPIL under a loan agreement between the Michigan Strategic Fund and GPIL. The Green Bonds mature in 2061 and include a mandatory purchase on October 1, 2026. The Green Bonds were issued at a price of 110.99% and bear interest at an annual rate of 4.0%. The equivalent yield is 1.70%. The net proceeds of \$109.5 million were used to fund a portion of its spend on the CRB platform optimization project that includes the construction of a new CRB machine at its Kalamazoo, Michigan mill. The bonds have been designated as Green Bonds primarily because the proceeds were used to finance a solid waste disposal/recycling facility resulting in diversion of waste from landfills. In addition to the solid waste recycling aspect, the project improves the environmental footprint of its CRB mill system through expected reductions in water usage, energy consumption and greenhouse gas emissions.

On October 6, 2021, GPIL entered into a \$400 million Incremental Facility Amendment to the Fourth Amended and Restated Credit Agreement (the "Incremental Term A-4 Facility"). The Incremental Term A-4 Facility has a delayed draw feature, and the Company funded the new term loan on October 29, 2021. The Incremental Term A-4 Facility was collateralized by the same assets as GPIL's Senior Secured Facilities on a pari passu basis. The Incremental Term A-4 Facility bore interest at a floating rate per annum equal to the Base Rate, the Euro currency Rate plus 0.875%, or the Daily Floating LIBOR Rate plus 0.875%, as selected by the Company. The loan was repaid on November 19, 2021 with the proceeds from the 3.75% senior unsecured notes due 2030.

On November 19, 2021, GPIL completed a private offering of \$400 million aggregate principal amount of 3.750% senior unsecured notes due 2030 (the "Dollar Notes") and €290 million aggregate principal amount of 2.625% senior unsecured notes due 2029 (the "Euro Notes"). The net proceeds of the Dollar Notes were used to repay in full the term loan borrowed under the Incremental Term A-4 Loan, which was under its senior secured credit facility. The net proceeds of the Euro Notes were used to repay revolver borrowings outstanding under its senior secured credit facility.

2020

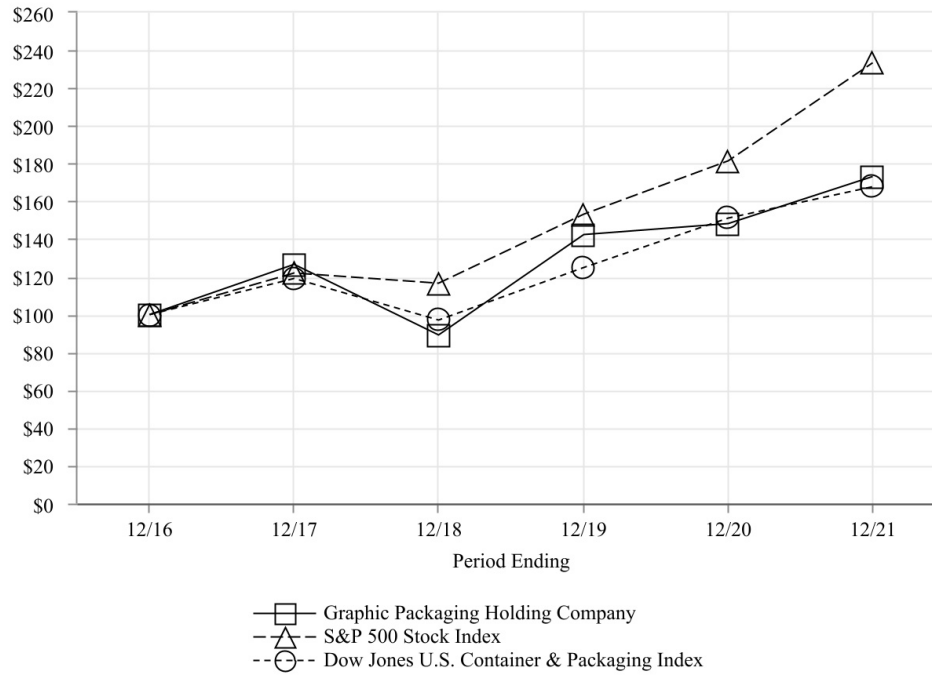
On March 6, 2020, GPIL completed a private offering of \$450 million aggregate principal amount of its 3.50% senior unsecured notes due 2028 (the "2028 Senior Notes"). The 2028 Senior Notes were sold in a private placement in reliance on Rule 144A and Regulation S under the Securities Exchange Act, as amended. The offering was completed pursuant to a purchase agreement between the Company, GPIL and Field Container Queretaro (USA), L.L.C. and BofA Securities, Inc. as representative of the initial purchasers. The Company received net proceeds of the offering of approximately \$443 million, after deducting the initial purchasers' discount and other transaction costs. The net proceeds of the offering were used to repay a portion of the outstanding borrowings under GPIL's revolving credit facility under its senior secured credit facility.

On August 28, 2020, GPIL completed a private offering of \$350 million aggregate principal amount of its 3.50% senior unsecured notes due 2029 (the "2029 Senior Notes"). The 2029 Senior Notes were sold in a private placement in reliance on Rule 144A and Regulation S under the Securities Exchange Act, as amended. The offering was completed pursuant to a purchase agreement between the Company, GPIL and Field Container Queretaro (USA), L.L.C. and BofA Securities, Inc. as representative of the initial purchasers. The Company received net proceeds of the offering of approximately \$345 million, after deducting the initial purchasers' discount and other transaction costs. The net proceeds of the offering were used to repay a portion of the outstanding borrowings under GPIL's revolving credit facility under its senior secured credit facility.

Total Return to Stockholders

The following graph compares the total returns (assuming reinvestment of dividends) of the common stock of Graphic Packaging Holding Company, the Standard & Poor's ("S&P") 500 Stock Index and the Dow Jones ("DJ") U.S. Container & Packaging Index. The graph assumes \$100 invested on December 31, 2016 in GPHC's common stock and each of the indices. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN



	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
Graphic Packaging Holding Company	\$ 100.00	\$ 126.58	\$ 89.12	\$ 142.43	\$ 148.05	\$ 173.19
S&P 500 Stock Index	100.00	121.83	116.49	153.17	181.35	233.41
Dow Jones U.S. Container & Packaging Index	100.00	119.02	97.06	124.80	151.18	167.76

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

INTRODUCTION

This management's discussion and analysis of financial conditions and results of operations is intended to provide investors with an understanding of the Company's past performance, financial condition and prospects. The following will be discussed and analyzed:

- Overview of Business
- Overview of 2021 Results
- Results of Operations
- Financial Condition, Liquidity and Capital Resources
- Critical Accounting Policies
- New Accounting Standards
- Business Outlook

A detailed discussion of the fiscal 2021 year-over-year changes can be found below and a detailed discussion of fiscal 2020 year-over-year changes can be found in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

OVERVIEW OF BUSINESS

The Company's objective is to strengthen its position as a leading provider of sustainable fiber-based consumer packaging solutions. To achieve this objective, the Company offers customers its paperboard, cartons, cups, lids, foodservice containers and packaging machines, either as an integrated solution or separately. Cartons, carriers and containers are designed to protect and hold products. Product offerings include a variety of laminated, coated and printed packaging structures that are produced from the Company's coated recycled paperboard ("CRB"), coated unbleached kraft paperboard ("CUK") and solid bleached sulfate paperboard ("SBS"). Innovative designs and combinations of paperboard, films, foils, metallization, holographics and embossing are customized to the individual needs of the customers.

The Company is implementing strategies (i) to expand market share in its current markets and to identify and penetrate new markets; (ii) to capitalize on the Company's customer relationships, business competencies, and mills and folding carton assets; (iii) to develop and market innovative, sustainable products and applications that benefit from consumer-led sustainability trends; and (iv) to continue to reduce costs by focusing on operational improvements. The Company's ability to fully implement its strategies and achieve its objectives may be influenced by a variety of factors, many of which are beyond its control, such as inflation of raw material and other costs, which the Company cannot always pass through to its customers, and the effect of overcapacity in the worldwide paperboard packaging industry.

Significant Factors That Impact the Company's Business and Results of Operations

Impact of Inflation/Deflation. The Company's cost of sales consists primarily of energy (including natural gas, fuel oil and electricity), pine and hardwood fiber, chemicals, secondary fibers, purchased paperboard, aluminum foil, ink, plastic films and resins, depreciation expense and labor. Costs increased year over year by \$386 million in 2021. The higher costs in 2021 were due to higher commodity inflation costs (\$330 million), labor and benefits (\$47 million), and other costs, net (\$9 million). Commodity inflation was primarily due to chemicals (\$91 million), freight (\$75 million), secondary fiber (\$51 million), energy (\$38 million), external board (\$34 million), wood (\$28 million), and other costs (\$13 million).

Because the price of natural gas experiences significant volatility, the Company has entered into contracts designed to manage risks associated with future variability in cash flows caused by changes in the price of natural gas. The Company has entered into natural gas swap contracts to hedge prices for a portion of its expected usage for 2022. Since negotiated sales contracts and the market largely determine the pricing for its products, the Company is at times limited in its ability to raise prices and pass through to its customers any inflationary or other cost increases that the Company may incur.

Commitment to Cost Reduction. In light of continuing margin pressure throughout the packaging industry, the Company has programs in place that are designed to reduce costs, improve productivity and increase profitability. The Company utilizes a global continuous improvement initiative that uses statistical process control to help design and manage many types of activities, including production and maintenance. This includes a Six Sigma process focused on reducing variable and fixed manufacturing and administrative costs and the use of Lean Sigma principles in manufacturing and supply chain processes.

The Company's ability to continue to successfully implement its business strategies and to realize anticipated savings and operating efficiencies is subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond the Company's control. If the Company cannot successfully implement the strategic cost reductions or other cost savings plans it may not be able to continue to compete successfully against other manufacturers. In addition, any failure to generate the anticipated efficiencies and savings could adversely affect the Company's financial results.

Competition and Market Factors. As some products can be packaged in different types of materials, the Company's sales are affected by competition from other manufacturers' CRB, CUK, SBS, folding box board, and recycled clay-coated news. Additional substitute products also include plastic, shrink film and corrugated containers. In addition, while the Company has long-term relationships with many of its customers, the underlying contracts may be re-bid or renegotiated from time to time, and the Company may not be successful in renewing on favorable terms or at all. The Company works to maintain market share through efficiency, product innovation, service and strategic sourcing to its customers; however, pricing and other competitive pressures may occasionally result in the loss of a customer relationship.

In addition, the Company's sales are driven by consumer buying habits in the markets its customers serve. Recently, the Company has seen net organic sales growth driven by the consumers' desire for sustainable packaging solutions and increased at home consumption. Changes in consumer dietary habits and preferences, increases in the costs of living, unemployment rates, access to credit markets, as well as other macroeconomic factors, may negatively affect consumer spending behavior. New product introductions and promotional activity by the Company's customers and the Company's introduction of new packaging products also impact its sales.

Debt Obligations. The Company had an aggregate principal amount of \$5,831 million of outstanding debt obligations as of December 31, 2021. This debt has consequences for the Company, as it requires a portion of cash flow from operations to be used for the payment of principal and interest, exposes the Company to the risk of increased interest rates and may restrict the Company's ability to obtain additional financing. Covenants in the Company's Fourth Amended and Restated Credit Agreement (as amended, the "Current Credit Agreement") and the indentures governing the 4.875% Senior Notes due 2022, 0.821% Senior Notes due 2024, 4.125% Senior Notes due 2024, 1.512% Senior Notes due 2026, 4.75% Senior Notes due 2027, 3.50% Senior Notes due 2028, 3.50% Senior Notes due 2029, 2.625% Senior Notes due 2029 and 3.75% Senior Notes due 2030 (the "Indentures") may, among other things, restrict the ability of the Company to dispose of assets, incur guarantee obligations, prepay other indebtedness, repurchase stock, pay dividends, make other restricted payments and make acquisitions or other investments. The Current Credit Agreement also requires compliance with a maximum consolidated leverage ratio and a minimum consolidated interest coverage ratio. The Company's ability to comply in future periods with the financial covenants will depend on its ongoing financial and operating performance, which in turn will be subject to many other factors, many of which are beyond the Company's control. See "Covenant Restrictions" in "Financial Condition, Liquidity and Capital Resources" for additional information regarding the Company's debt obligations.

The debt and the restrictions under the Current Credit Agreement Indentures could limit the Company's flexibility to respond to changing market conditions and competitive pressures. The outstanding debt obligations and the restrictions may also leave the Company more vulnerable to a downturn in general economic conditions or its business, or unable to carry out capital expenditures that are necessary or important to its growth strategy and productivity improvement programs.

OVERVIEW OF RESULTS

This management's discussion and analysis contains an analysis of Net Sales, Income from Operations and other information relevant to an understanding of the Company's results of operations. On a consolidated basis:

- Net Sales in 2021 increased by \$596 million or 9%, to \$7,156 million from \$6,560 million in 2020 due to organic sales growth, the AR Packaging, Americraft, Greif, and Quad acquisitions, higher selling prices, and favorable foreign exchange, partially offset by lower open market volume of our paperboard.
- Income from Operations in 2021 decreased by \$117 million or 22%, to \$407 million from \$524 million in 2020. Transactions recorded in Business Combinations, Shutdown and Other Special Charges and Exit Activities, Net increased \$77 million driven by higher charges related to acquisitions. In addition, Income from Operations was negatively impacted in 2021 as compared to 2020 by inflation (primarily commodity and labor and benefits), \$21 million of Winter Storm Uri related downtime and mitigation costs in 2021 net of insurance recoveries, lower volumes of our open market sales, and higher depreciation and amortization. Income from Operations was positively impacted in 2021 as compared to 2020 by higher pricing, higher volumes from organic sales growth and acquisitions, cost savings from continuous improvement and other programs, product mix, lower levels of planned maintenance and higher levels of market downtime at the uncoated SBS cupstock paper machine in 2020.

Acquisitions, Closures, and Dispositions

- On August 1, 2019, the Company acquired substantially all the assets of Artistic, a diversified producer of folding cartons and CRB. The acquisition included two converting plants located in Auburn, Indiana and Elgin, Illinois (included in the Americas Paperboard Packaging reportable segment) and one CRB mill located in White Pigeon, Michigan (included in the Paperboard Mills reportable segment).
- On January 31, 2020, the Company acquired a folding carton facility from Quad, a commercial printing company. The converting facility is located in Omaha, Nebraska and is included in the Americas Paperboard Packaging reportable segment.
- On April 1, 2020, the Company acquired the Consumer Packaging Group business from Greif, a leader in industrial packaging products and services. The acquisition included seven converting plants across the United States, which are included in the Americas Paperboard Packaging reportable segment.
- On July 1, 2021, the Company acquired substantially all the assets of Americraft, the largest independent folding carton converter in North America. The acquisition included seven converting plants across the United States and is reported within the Americas Paperboard Packaging reportable segment.
- On November 1, 2021, the Company acquired all the shares of AR Packaging, Europe's second largest producer of fiber-based consumer packaging. The acquisition included 30 converting plants in 13 countries and is reported within the Europe Paperboard Packaging reportable segment.

Share Repurchases and Dividends

- During 2021, GPHC did not repurchase any shares of its outstanding common stock. GPHC had approximately \$147 million available for additional repurchases under the 2019 share repurchase program.
- During 2021, GPHC declared cash dividends of \$90 million and paid cash dividends of \$87 million.

RESULTS OF OPERATIONS

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
Net Sales	\$ 7,156	\$ 6,560	\$ 6,160
Income from Operations	\$ 407	\$ 524	\$ 534
Nonoperating Pension and Postretirement Benefit Income (Expense)	5	(151)	(39)
Interest Expense, Net	(123)	(129)	(141)
Income before Income Taxes and Equity Income of Unconsolidated Entity	\$ 289	\$ 244	\$ 354
Income Tax Expense	(74)	(42)	(76)
Income before Equity Income of Unconsolidated Entity	\$ 215	\$ 202	\$ 278
Equity Income of Unconsolidated Entity	1	1	—
Net Income	\$ 216	\$ 203	\$ 278

2021 COMPARED WITH 2020

Net Sales

The components of the change in Net Sales are as follows:

<i>In millions</i>	Year Ended December 31,						
	2020	Variances			2021	Increase	Percent Change
		Price	Volume/Mix	Foreign Exchange			
Consolidated	\$ 6,560	\$ 150	\$ 379	\$ 67	\$ 7,156	\$ 596	9 %

The Company's Net Sales in 2021 increased by \$596 million or 9%, to \$7,156 million from \$6,560 million for the same period in 2020, due to Net Sales of \$344 million from the AR Packaging, Americraft, Greif, and Quad acquisitions, higher pricing, organic sales growth including new product introductions and conversions to our paperboard packaging solutions, and favorable foreign exchange partially offset by lower open market volume of our paperboard. Favorable foreign currency exchange rates were primarily due to the British Pound, Canadian Dollar, Euro, and Australian Dollar. Core converting volumes were up, primarily in global beverage and foodservice packaging, including cups, offset by declines in dry foods and cereal.

Income from Operations

The components of the change in Income from Operations are as follows:

<i>In millions</i>	Year Ended December 31,							2021	Decrease	Percent Change
	2020	Variances					2021			
		Price	Volume/Mix	Inflation	Foreign Exchange	Other ^(a)				
Consolidated	\$ 524	\$ 150	\$ 35	\$ (386)	\$ 1	\$ 83	\$ 407	\$ (117)	(22)%	

^(a)Includes the Company's cost reduction initiatives, planned mill maintenance costs, mill market downtime costs, expenses related to acquisitions and integration activities, exit activities, and shutdown and other special charges.

The Company's Income from Operations for 2021 decreased \$117 million or 22%, to \$407 million from \$524 million for the same period in 2020. Transactions recorded in Business Combinations, Shutdown and Other Special Charges and Exit Activities, Net increased \$77 million driven by higher charges for acquisitions partially offset by higher charges for exit activities in 2020, including those related to our announced closures of White Pigeon, Michigan, CRB mill and West Monroe, Louisiana, PM1 containerboard machine. In addition, Income from Operations was negatively impacted in 2021 as compared to 2020 by inflation (primarily commodity and labor and benefits), \$21 million of Winter Storm Uri related downtime and mitigation costs in 2021 net of insurance recoveries, lower volumes of our open market sales, and higher depreciation and amortization. Income from Operations was positively impacted in 2021 as compared to 2020 by higher pricing, higher volumes from organic sales growth and acquisitions, cost savings from continuous improvement and other programs, product mix, lower levels of planned maintenance and higher levels of market downtime at the uncoated SBS cupstock paper machine in 2020.

Inflation in 2021 increased due to higher commodity inflation costs (\$330 million), labor and benefits (\$47 million), and other costs, net (\$9 million). Commodity inflation was primarily due to chemicals (\$91 million), freight (\$75 million), secondary fiber (\$51 million), energy (\$38 million), external board (\$34 million), wood (\$28 million), and other costs (\$13 million).

Nonoperating Pension and Postretirement Benefit

Nonoperating Pension and Postretirement Benefit was income of \$5 million in 2021 versus an expense of \$151 million in 2020. The decrease in expense was due to a settlement charge of \$153 million incurred during the first quarter of 2020 associated with the Company's purchase of a group annuity contract that transferred the remaining pension benefit obligation under the largest U.S. Plan of approximately \$713 million to an insurance company.

Interest Expense, Net

Interest Expense, Net decreased by \$6 million to \$123 million in 2021 from \$129 million in 2020. Interest Expense, Net decreased due to lower interest rates, partially offset by higher debt balances as compared to prior year. As of December 31, 2021, approximately 31% of the Company's total debt was subject to floating interest rates.

Income Tax Expense

During 2021, the Company recognized Income Tax Expense of \$74 million on Income before Income Taxes and Equity Income of Unconsolidated Entity of \$289 million. During 2020, the Company recognized Income Tax Expense of \$42 million on Income before Income Taxes and Equity Income of Unconsolidated Entity of \$244 million.

The effective tax rate for 2021 is different from the statutory rate due to the tax effect of income attributable to noncontrolling interests as well as the mix of earnings between foreign and domestic jurisdictions. In addition, during 2021, the Company recorded discrete tax expense to recognize tax rate increases in the United Kingdom and to recognize the effects of the Tax Cuts and Jobs Act on executive compensation as a result of IP's exit from the partnership. The effective tax rate in 2021 is higher than the effective tax rate in 2020 primarily due to these discrete tax items as compared to 2020.

The Company utilized its remaining U.S. federal net operating loss carryforwards during 2020. However, as a result of deductions associated with the step up in tax basis of certain assets as a result of International Paper's exit from the partnership, the Company generated a taxable loss of \$574 million during 2021 that can be carried forward for U.S. federal income tax purposes indefinitely. As such, based on the net operating loss generated in 2021 as well as future tax benefits associated with planned capital projects and tax credit carryforwards which are available to offset future U.S. federal income tax, the Company does not expect to be a meaningful U.S. federal cash taxpayer until 2024.

Equity Income of Unconsolidated Entity

Equity Income of Unconsolidated Entity was \$1 million in 2021 and \$1 million in 2020 and is related to the Company's equity investment through its GPIL subsidiary, in the Rengo Riverwood Packaging, Ltd. joint venture.

Segment Reporting

The Company has three reportable segments as follows:

Paperboard Mills includes the eight North American paperboard mills that produce primarily CRB, CUK, and SBS, which is consumed internally to produce paperboard packaging for the Americas and Europe Packaging segments. The remaining paperboard is sold externally to a wide variety of paperboard packaging converters and brokers. The Paperboard Mills segment Net Sales represents the sale of paperboard only to external customers. The effect of intercompany transfers to the paperboard packaging segments has been eliminated from the Paperboard Mills segment to reflect the economics of the integration of these segments.

Americas Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to Consumer Packaged Goods ("CPG") companies, and cups, lids and food containers sold primarily to foodservice companies and Quick-Service Restaurants ("QSR") serving the food, beverage, and consumer product markets in the Americas.

Europe Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to CPG companies serving the food, beverage and consumer product markets including healthcare and beauty primarily in Europe.

The Company allocates certain mill and corporate costs to the reportable segments to appropriately represent the economics of these segments. The Corporate and Other caption includes the Pacific Rim and Australia operating segments and unallocated corporate and one-time costs.

These segments are evaluated by the chief operating decision maker based primarily on Income from Operations, as adjusted for depreciation and amortization. The accounting policies of the reportable segments are the same as those described in "Note 1 - Nature of Business and Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements included herein under "Item 8. Financial Statements and Supplementary Data."

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
NET SALES:			
Paperboard Mills	\$ 1,007	\$ 988	\$ 1,095
Americas Paperboard Packaging	4,996	4,650	4,234
Europe Paperboard Packaging	992	765	689
Corporate/Other/Eliminations ^(a)	161	157	142
Total	\$ 7,156	\$ 6,560	\$ 6,160
(LOSS) INCOME FROM OPERATIONS:			
Paperboard Mills ^(b)	\$ (10)	\$ (110)	\$ 33
Americas Paperboard Packaging	456	639	478
Europe Paperboard Packaging	82	66	60
Corporate and Other ^(c)	(121)	(71)	(37)
Total	\$ 407	\$ 524	\$ 534

^(a) Includes revenue from contracts with customers for the Australia and Pacific Rim operating segments.

^(b) Includes accelerated depreciation related to exit activities in 2021, 2020, and 2019.

^(c) Includes expenses related to business combinations, shutdown and other special charges, and exit activities.

2021 COMPARED WITH 2020

Paperboard Mills

Net Sales increased from prior year due to higher selling prices and mix partially offset by lower open market volume. Lower open market volume was primarily due to the closure of the White Pigeon, Michigan CRB mill and shut down of the PM1 containerboard machine in West Monroe, Louisiana, both in 2020, and one fewer production and selling day due to leap year. The Company also internalized more paperboard tons.

Loss from Operations decreased due to the impacts of productivity improvements, including benefits from capital projects, and higher prices offset by commodity and other inflation, increased downtime and mitigation costs related to Winter Storm Uri, and lower open market volume. The commodity inflation was primarily due to higher prices for secondary fiber, chemicals, energy, and freight.

Americas Paperboard Packaging

Net Sales increased due to acquisitions including Americraft in Q3 2021 and Greif in Q2 2020, higher pricing, organic sales growth including conversions to our paperboard packaging solutions, new product introductions, and favorable foreign currency exchange rates. Higher volumes primarily in foodservice packaging including cups, beverage markets, dairy products and bakery were offset by lower volumes in dry foods, cereal, tissue, and frozen pizza. In beverage, volumes increased in all categories including craft and specialty, big beer, and soft drinks.

Income from Operations decreased due to commodity inflation, other inflation (primarily labor and benefits), downtime and mitigation costs related to Winter Storm Uri, and one fewer selling day due to leap year offset by higher selling prices, cost savings from continuous improvement and other programs, the timing of annual outages, and higher volumes including from organic sales growth and acquisitions. The commodity inflation was primarily due to higher prices for freight, chemicals, secondary fiber, and external board.

Europe Paperboard Packaging

Net Sales increased due to the acquisition of AR Packaging on November 1, 2021 as well as higher prices, increased volumes led by beverage and convenience, and favorable foreign currency exchange rates offset by unfavorable mix.

Income from Operations increased due to cost savings through continuous improvement and other programs, increased volumes, and pricing offset by commodity inflation, higher labor and benefits costs, and due to the acquisition of AR Packaging on November 1, 2021 including the amortization of purchased intangibles.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

The Company broadly defines liquidity as its ability to generate sufficient funds from both internal and external sources to meet its obligations and commitments. In addition, liquidity includes the ability to obtain appropriate debt and equity financing and to convert into cash those assets that are no longer required to meet existing strategic and financial objectives. Therefore, liquidity cannot be considered separately from capital resources that consist of current or potentially available funds for use in achieving long-range business objectives and meeting debt service commitments.

Liquidity and Capital Resources

The Company's liquidity needs arise primarily from the funding of its capital expenditures, debt service on its indebtedness, ongoing operating costs, working capital, share repurchases and dividend payments. Principal and interest payments under the term loan facilities and the revolving credit facilities, together with principal and interest payments on the Company's 4.875% Senior Notes due 2022, 0.821% Senior Notes due 2024, 4.125% Senior Notes due 2024, 1.512% Senior Notes due 2026, 4.75% Senior Notes due 2027, 3.50% Senior Notes due 2028, 3.50% Senior Notes due 2029, 2.625% Senior Notes due 2029 and 3.75% Senior Notes due 2030 (the "Notes"), represent liquidity requirements for the Company. Based upon current levels of operations, anticipated cost savings and expectations as to future growth, the Company believes that cash generated from operations, together with amounts available under its revolving credit facilities and other available financing sources, will be adequate to permit the Company to meet its debt service obligations, necessary capital expenditure program requirements and ongoing operating costs and working capital needs, although no assurance can be given in this regard. The Company's future financial and operating performance, ability to service or refinance its debt and ability to comply with the covenants and restrictions contained in its debt agreements (see "Covenant Restrictions" below) will be subject to future economic conditions, including conditions in the credit markets, and to financial, business and other factors, many of which are beyond the Company's control, and will be substantially dependent on the selling prices and demand for the Company's products, raw material and energy costs, and the Company's ability to successfully implement its overall business and profitability strategies.

Accounts receivable are stated at the amount owed by the customer, net of an allowance for estimated uncollectible accounts, returns and allowances, and cash discounts. The allowance for doubtful accounts is estimated based on historical experience, current economic conditions and the creditworthiness of customers. Receivables are charged to the allowance when determined to be no longer collectible.

The Company has entered into agreements to sell, on a revolving basis, certain trade accounts receivable to third party financial institutions. Transfers under these agreements meet the requirements to be accounted for as sales in accordance with the *Transfers and Servicing* topic of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification (the "Codification"). The loss on sale is not material and is included in Other Expense, Net line item on the Consolidated Statement of Operations. The following table summarizes the activity under these programs for the year ended December 31, 2021 and 2020, respectively:

<i>In millions</i>	Year Ended December 31,	
	2021	2020
Receivables Sold and Derecognized	\$ 2,947	\$ 2,850
Proceeds Collected on Behalf of Financial Institutions	2,970	2,787
Net Proceeds (Paid to) Received From Financial Institutions	(6)	55
Deferred Purchase Price at December 31 ^(a)	4	5
Pledged Receivables at December 31	180	201

^(a) Included in Other Current Assets on the Condensed Consolidated Balance Sheet and represents a beneficial interest in the receivables sold to the financial institutions, which is a Level 3 fair value measure.

The Company participates in supply chain financing arrangements offered by certain customers and has entered into various factoring arrangements that also qualify for sale accounting in accordance with the *Transfers and Servicing* topic of the FASB Codification. For the years ended December 31, 2021 and 2020, the Company sold receivables of approximately \$693 million and \$368 million, respectively, related to these factoring arrangements.

Receivables sold under all programs subject to continuing involvement, which consist principally of collection services, were approximately \$613 million and \$621 million as of December 31, 2021 and 2020, respectively.

Cash Flows

<i>In millions</i>	Years Ended December 31,	
	2021	2020
Net Cash Provided by Operating Activities	\$ 609	\$ 825
Net Cash Used in Investing Activities	\$ (2,392)	\$ (648)
Net Cash Provided by (Used in) Financing Activities	\$ 1,778	\$ (152)

Net cash provided by operating activities in 2021 totaled \$609 million, compared to \$825 million in 2020. The decrease was primarily due to higher inventory balances due to inflation and lower other accrued liabilities balances. Pension contributions in 2021 and 2020 were \$33 million and \$19 million, respectively. In the first quarter of 2021, the Company made a \$14 million contribution to its remaining U.S. defined benefit plan by effectively utilizing a portion of the excess balance related to the terminated U.S. defined benefit plan.

Net cash used in investing activities in 2021 totaled \$2,392 million, compared to \$648 million in 2020. Capital spending was \$802 million and \$646 million in 2021 and 2020, respectively. In 2021, the Company paid \$292 million and \$1,412 million, net of cash acquired, for the Americraft and AR Packaging acquisitions, respectively. In the prior year, the Company paid \$121 million, net of cash acquired, for the 2020 Acquisitions. Net cash receipts related to the accounts receivable securitization and sale programs were \$119 million and \$127 million in 2021 and 2020, respectively.

Net cash provided by financing activities in 2021 totaled \$1,778 million, compared to \$152 million used in financing activities in 2020. Current year activities include a debt drawing of \$425 million Incremental Term A-2 Facility and the use of the proceeds, together with cash on hand, to redeem the 4.75% Senior Notes due in 2021, and a debt drawing of \$250 million Incremental Term A-3 Facility. Other current year activities include an offering of \$400 million aggregate principal amount of 0.821% Senior Notes due 2024, an offering of \$400 million aggregate principal amount of 1.512% Senior Notes due 2026. The net proceeds of \$800 million were used by the Company to repay a portion of the outstanding borrowings under GPIL's term loan credit facilities, which are under its senior secured credit facility. Additionally, the Company had an offering of \$100 million aggregate principal amount of tax-exempt green bonds, with the net proceeds of \$111 million used to reimburse GPIL for a portion of its CRB platform optimization project. Other current year activities include a debt drawing of \$400 million Incremental Term A-4 Facility and a debt drawing of €210 million Incremental Euro Term Loan Facility under the Senior Secured Credit Facility due 2026. Additionally, the Company completed the offering of \$400 million Senior Notes due in 2030 and used the proceeds to repay the Incremental Term A-4 Facility and €290 million aggregate principal amount of its 2.625% senior unsecured notes due 2029 and used the proceeds to repay revolver borrowings outstanding under its senior secured credit facility. The Company also paid \$150 million toward the redemption of IP's ownership interest in GPIP, and \$109 million Tax Receivable Agreement (TRA) payment related to IP exit. Additionally, the Company made borrowings under revolving credit facilities primarily for capital spending, redemption of IP's ownership interest and payments on debt of \$16 million. The Company also paid dividends and distributions of \$92 million and withheld \$15 million of restricted stock units to satisfy tax withholding obligations related to the payout of restricted stock units. In the prior year, the Company had a debt offering of \$450 million aggregate principal amount of 3.50% Senior Notes due 2028, and a debt offering of \$350 million aggregate principal amount of 3.50% Senior Notes due 2029. The Company also paid \$500 million toward the redemption of IP's ownership interest in GPIP. The Company also made borrowings under revolving credit facilities primarily for capital spending, repurchase of stock of \$316 million and payments on debt of \$37 million. The Company also paid dividends and distributions of \$103 million and withheld \$9 million of restricted stock units to satisfy tax withholding payments related to the payout of restricted stock units.

Supplemental Guarantor Financial Information

As discussed in "Note 1 - Nature of Business and Summary of Significant Accounting Policies" in the Notes to Condensed Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data," on May 21, 2021, IP exchanged its remaining 22.8 million partnership units for an equivalent number of shares of GPHC common stock. As required by the parties' agreement, these shares were immediately sold by IP. As a result, IP has no ownership interest remaining in GPIP as of May 21, 2021, and GPIL is no longer subject to separate SEC filing requirements. As such, the Company has included Supplemental Guarantor disclosures that were previously included in the GPIL SEC filings effective June 30, 2021.

As further discussed in "Note 5 - Debt" in the Notes to Condensed Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data," the Senior Notes issued by GPIL (the "Issuer") are guaranteed by certain domestic subsidiaries (the "Subsidiary Guarantors"), which consist of all material 100% owned subsidiaries of GPIL, other than its foreign subsidiary holding companies, domestic subsidiaries and in certain instances by the Company (a Parent guarantee) (collectively "the Guarantors"). GPIL's remaining subsidiaries (the "Nonguarantor Subsidiaries") include all of GPIL's foreign subsidiary holding companies, foreign subsidiaries and immaterial domestic subsidiaries. The Subsidiary Guarantors are jointly and severally, fully and unconditionally liable under the guarantees.

Other than tax related items, the results of operations, assets, and liabilities for GPHC and GPIL are substantially the same. Therefore, the summarized financial information below is presented on a combined basis, consisting of GPIL and Subsidiary Guarantors (collectively, the "Obligor Group"), and is presented after the elimination of: (i) intercompany transactions and balances among GPIL and Subsidiary Guarantors, and (ii) equity in earnings from and investments in the Nonguarantor Subsidiaries.

<i>In millions</i>	Twelve Months Ended December 31, 2021	
SUMMARIZED STATEMENTS OF OPERATIONS		
Net Sales ^(a)	\$	5,847
Cost of Sales		4,973
Income from Operations		303
Net Income		185

^(a) Includes Net Sales to Nonguarantor Subsidiaries of \$509 million.

<i>In millions</i>	December 31, 2021	
SUMMARIZED BALANCE SHEET		
Current assets (excluding intercompany receivable from Nonguarantor)	\$	1,235
Noncurrent assets		5,888
Intercompany receivables from Nonguarantors		1,258
Current liabilities		1,472
Noncurrent liabilities		5,713

Covenant Restrictions

Covenants contained in the Current Credit Agreement and the Indentures may, among other things, limit the ability to incur additional indebtedness, restrict the ability of the Company to dispose of assets, incur guarantee obligations, prepay other indebtedness, repurchase shares, pay dividends and make other restricted payments, create liens, make equity or debt investments, make acquisitions, modify terms of the indentures under which the Notes are issued, engage in mergers or consolidations, change the business conducted by the Company and its subsidiaries, and engage in certain transactions with affiliates. Such restrictions, together with disruptions in the credit markets, could limit the Company's ability to respond to changing market conditions, fund its capital spending program, provide for unexpected capital investments or take advantage of business opportunities.

Under the terms of the Current Credit Agreement, the Company must comply with a maximum Consolidated Total Leverage Ratio covenant and a minimum Consolidated Interest Expense Ratio covenant. The Current Credit Agreement, which contains the definitions of these covenants, was filed as an exhibit to the Company's Form 8-K filed on April 1, 2021.

Due to the completion of a material acquisition, the Current Credit Agreement requires that the Company maintain a maximum Consolidated Total Leverage Ratio of less than 5.00 to 1.00. At December 31, 2021, the Company was in compliance with such covenant and the ratio was 4.39 to 1.00.

The Company must also comply with a minimum Consolidated Interest Expense Ratio of 3.00 to 1.00. At December 31, 2021, the Company was in compliance with such covenant and the ratio was 10.85 to 1.00.

As of December 31, 2021, the Company's credit was rated BB+ by Standard & Poor's and Ba1 by Moody's Investor Services. Standard & Poor's and Moody's Investor Services' ratings on the Company included a stable outlook.

Capital Investment

The Company's capital investments in 2021 were \$899 million (\$802 million was paid), compared to \$651 million (\$646 million was paid) in 2020. During 2021, the Company had capital spending of \$855 million for improving process capabilities, \$17 million for capital spares and \$27 million for manufacturing packaging machinery.

Environmental Matters

Some of the Company's current and former facilities are the subject of environmental investigations and remediations resulting from historical operations and the release of hazardous substances or other constituents. Some current and former facilities have a history of industrial usage for which investigation and remediation obligations may be imposed in the future or for which indemnification claims may be asserted against the Company. Also, closures or sales of facilities may necessitate further investigation and may result in remediation at those facilities. The Company has established reserves for those facilities or issues where liability is probable and the costs are reasonably estimable.

For further discussion of the Company's environmental matters, see "Note 14 - Environmental and Legal Matters" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Contractual Obligations and Commitments

A summary of our contractual obligations and commitments as of December 31, 2021 is as follows:

In millions	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Debt Obligations	\$ 5,685	\$ 272	\$ 773	\$ 2,134	\$ 2,506
Operating Leases	288	78	105	51	54
Finance Leases	205	17	29	27	132
Interest Payable	833	160	293	216	164
Purchase Obligations ^(a)	388	140	141	65	42
Total Contractual Obligations ^(b)	\$ 7,399	\$ 667	\$ 1,341	\$ 2,493	\$ 2,898

^(a) Purchase obligations primarily consist of commitments for the purchase of fiber and chip processing along with commitments associated with building the new CRB paper machine in Kalamazoo, Michigan.

^(b) Certain amounts included in this table are based on management's estimates and assumptions about these obligations. Because these estimates and assumptions are necessarily subjective, the obligations the Company will actually pay in the future periods may vary from those reflected in the table.

International Operations

For 2021, before intercompany eliminations, net sales from operations outside of the U.S. represented approximately 23% of the Company's net sales. The Company's revenues from export sales fluctuate with changes in foreign currency exchange rates. At December 31, 2021, approximately 30% of the Company's total assets were denominated in currencies other than the U.S. dollar. The Company has significant operations in countries that use the euro, British pound sterling, Swedish krona, Polish zloty, the Australian dollar, the Canadian dollar, the Mexican peso or the Japanese yen as their functional currencies. The effect of changes in the U.S. dollar exchange rate against these currencies produced a net currency translation adjustment loss of \$28 million, which was recorded in Other Comprehensive (Loss) Income for the year ended December 31, 2021. The magnitude and direction of this adjustment in the future depends on the relationship of the U.S. dollar to other currencies. The Company pursues a currency hedging program in order to reduce the impact of foreign currency exchange fluctuations on financial results. See "Financial Instruments" below.

Financial Instruments

The Company pursues a currency hedging program which utilizes derivatives to reduce the impact of foreign currency exchange fluctuations on its consolidated financial results. Under this program, the Company has entered into forward exchange contracts in the normal course of business to hedge certain foreign currency denominated transactions. Realized and unrealized gains and losses on these forward contracts are included in the measurement of the basis of the related foreign currency transaction when recorded. The Company also pursues a hedging program that utilizes derivatives designed to manage risks associated with future variability in cash flows and price risk related to future energy cost increases. Under this program, the Company has entered into natural gas swap contracts to hedge a portion of its forecasted natural gas usage for 2022. Realized gains and losses on these contracts are included in the financial results concurrently with the recognition of the commodity consumed. In addition, the Company uses interest rate swaps to manage interest rate risks on future interest payments caused by interest rate changes on its variable rate term loan facility. The Company does not hold or issue financial instruments for trading purposes. See "Item 7A., Quantitative and Qualitative Disclosure About Market Risk."

Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements.

CRITICAL ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting period. Actual results could differ from these estimates, and changes in these estimates are recorded when known. The critical accounting policies used by management in the preparation of the Company's consolidated financial statements are those that are important both to the presentation of the Company's financial condition and results of operations and require significant judgments by management with regard to estimates used. The critical judgments by management relate to pension benefits, future cash flows associated with impairment testing for goodwill and long-lived assets, and deferred income taxes.

Acquisitions

The Company uses the acquisition method of accounting for acquired businesses. Under the acquisition method of accounting, the Company allocated the purchase consideration to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the date of the acquisition. Any excess of the purchase price over the estimated fair values of the identifiable net assets acquired is recorded as goodwill. Any excess of the estimated fair values of the identifiable net assets over the purchase price is recorded as a gain on bargain purchase. The estimates used to determine the fair value of long-lived assets, such as intangible assets, can be complex and require significant judgments. Therefore, we use information available to us to make fair value determinations and often engage independent valuation specialists, when necessary, to assist in the fair value determination of significant, acquired long-lived assets. The determination of fair value requires estimates about discount rates, growth and retention rates, royalty rates, expected future cash flows and other future events that are judgmental in nature. While we use our best estimates and assumptions as a part of the purchase price allocation process, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we are permitted to record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of income. The Company is also required to estimate the useful lives of intangible assets to determine the amount of acquisition-related intangible asset amortization expense to record in future periods. Such useful lives are determined based upon the expected period of future cash flows to be generated by the intangible asset. The Company periodically reviews the estimated useful lives assigned to our intangible assets to determine whether such estimated useful lives continue to be appropriate.

On November 1, 2021, the Company completed its acquisition of AR Packaging (the "Transaction"), through the acquisition of all of the shares of AR Packaging for cash of \$1,412 million, net of cash acquired of \$75 million. AR Packaging's results of operations have been included in the Company's financial results since the acquisition date. The Company allocated the fair value of purchase consideration transferred to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the date of the acquisition. The Company identified that the acquired assets included customer relationships, which were assigned a fair value of \$439 million using a discounted cash flow analysis. Significant assumptions in valuing this asset included the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected earnings before interest, taxes, depreciation, and amortization ("EBITDA") margins, tax rate, depreciation, contributory asset charge, and future earnings projections among others. The Company believes the estimates applied to be based on reasonable assumptions, but which are inherently uncertain. As a result, actual results may differ from the assumptions and judgments used to determine fair value of the assets acquired, which could result in material impairment losses in the future. Additional information regarding our acquisitions is included in "Note 4 - Business Combinations" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Pension Benefits

The Company sponsors defined benefit pension plans (the "Plans") for eligible employees in North America and certain international locations. The funding policy for the U.S. qualified defined benefit plans is to, at a minimum, contribute assets as required by the Internal Revenue Code Section 412. Non qualified defined benefit U.S. plans providing benefits in excess of limitations imposed by the U.S. income tax code are not funded.

The Company's pension expense for defined benefit pension plans was \$11 million in 2021 compared to \$167 million in 2020. The 2020 expense includes a \$154 million charge associated with the termination and settlement of the Company's largest U.S. plan. Pension expense is calculated based upon a number of actuarial assumptions applied to each of the defined benefit plans.

The weighted average expected long-term rate of return on pension fund assets used to calculate pension expense was 3.59% and 4.12% in 2021 and 2020, respectively. The expected long-term rate of return on pension assets was determined based on several factors, including historical rates of return, input from our pension investment consultants and projected long-term returns of broad equity and bond indices. The Company evaluates its long-term rate of return assumptions annually and adjusts them as necessary.

The Company determined pension expense using both the fair value of assets and a calculated value that averages gains and losses over a period of years. Investment gains or losses represent the difference between the expected and actual return on assets. As of December 31, 2021, the net actuarial loss was \$71 million. These net losses may increase future pension expense if not offset by (i) actual investment returns that exceed the assumed investment returns, or (ii) other factors, including reduced pension liabilities arising from higher discount rates used to calculate pension obligations, or (iii) other actuarial gains, including whether such accumulated actuarial losses at each measurement date exceed the “corridor” determined under the *Compensation — Retirement Benefits* topic of the FASB Codification. The actuarial loss is amortized over the average remaining life expectancy period of employees expected to receive benefits.

The discount rate used to determine the present value of future pension obligations at December 31, 2021 was based on a yield curve constructed from a portfolio of high-quality corporate debt securities with maturities ranging from 1 year to 30 years. Each year’s expected future benefit payments were discounted to their present value at the spot yield curve rate thereby generating the overall discount rate for the Company’s pension obligations. The weighted average discount rate used to determine the pension obligations was 2.46% and 2.11% in 2021 and 2020, respectively.

The Company’s pension expense is estimated to be approximately \$9 million in 2022. The estimate is based on a weighted average expected long-term rate of return of 3.86%, a weighted average discount rate of 2.46% and other assumptions. Pension expense beyond 2021 will depend on future investment performance, the Company’s contribution to the plans, changes in discount rates and other factors related to covered employees in the plans.

If the discount rate assumptions for the Company’s U.S. plans were reduced by 0.25%, pension expense would increase by approximately \$1 million and the December 31, 2021 projected benefit obligation would increase approximately \$10 million.

The fair value of assets in the Company’s plans was \$557 million at December 31, 2021 and \$516 million at December 31, 2020. The projected benefit obligations exceed the fair value of plan assets by \$70 million and \$77 million as of December 31, 2021 and 2020, respectively. The accumulated benefit obligation (“ABO”) exceeded the fair value of plan assets by \$64 million and \$72 million at the end of 2021 and 2020, respectively.

Goodwill

The Company evaluates goodwill for potential impairment annually as of October 1, as well as whenever events or changes in circumstances suggest that the fair value of a reporting unit may no longer exceed its carrying amount. Potential impairment of goodwill is measured at the reporting unit level by comparing the reporting unit’s carrying amount, including goodwill, to the estimated fair value of the reporting unit. As of October 1, 2021, the Company had seven reporting units, five of which had goodwill.

Periodically, the Company may perform a qualitative impairment analysis of goodwill associated with each of its reporting units to determine if it is more likely than not that the carrying value of a reporting unit exceeded its fair value. If the results of the qualitative analysis of any of the reporting units is inconclusive, or if significant changes in the business have occurred since the last quantitative impairment assessment, the Company will perform a quantitative analysis for those reporting units.

As of October 1, 2021, the Company performed a quantitative impairment test. The quantitative analysis involves calculating the fair value of each reporting unit by utilizing a discounted cash flow analysis based on the Company’s business plans, discounted using a weighted average cost of capital and market indicators of terminal year cash flows based upon a multiple of earnings before interest, taxes, depreciation and amortization (“EBITDA”).

Estimating the fair value of the reporting unit involves uncertainties as it requires management to consider a number of factors, including but not limited to, future operating results, business plans, economic projections of revenues and operating margins, estimated future cash flows, and market data and analysis, including market capitalization. Fair value determinations are sensitive to changes in the factors described above. There are inherent uncertainties related to these factors and judgments used to estimate reporting unit fair value and the related analysis of potential goodwill impairment.

The variability of the assumptions that management uses to perform the goodwill impairment test depends on a number of conditions, including uncertainty about future events and cash flows. Accordingly, the Company’s accounting estimates may materially change from period to period due to changing market factors. If the Company had used other assumptions and estimates or if different conditions occur in future periods, future operating results and cash flows could be materially impacted, and judgments and conclusions about the recoverability of goodwill could change. The assumptions used in the goodwill impairment testing process could also be adversely impacted by certain of the risks discussed in “Item 1A., Risk Factors” and thus could result in future goodwill impairment charges.

The Company performed its annual goodwill impairment tests as of October 1, 2021. The Company concluded that all reporting units with goodwill have a fair value that exceeds their carrying value, and thus goodwill was not impaired. The discount rate used for each reporting unit ranged from 7.5% to 8.0%, and we utilized an EBITDA multiple of 9 times to calculate terminal period cash flows. The Foodservice and Australia reporting units had fair values that exceed their respective carrying values by 25% and 21%, respectively, whereas all other reporting units exceeded by more than 30%. If we had concluded that it was appropriate to increase the discount rate we used by 100 basis points to estimate the fair value of our respective reporting units, the fair value of each reporting unit would have continued to exceed its carrying amount. The Foodservice and Australia reporting units had goodwill totaling \$43 million and \$11 million, respectively. The Company does not believe it is likely that there will be material changes in the assumptions or estimates used to calculate the reporting unit fair values.

Recovery of Long-Lived Assets

The Company evaluates the recovery of its long-lived assets by analyzing operating results and considering significant events or changes in the business environment that may have triggered impairment. The Company reviews long-lived assets (including property, plant and equipment and intangible assets) for impairment whenever events or changes in circumstances indicate that the carrying amount of such long-lived assets may not be fully recoverable by undiscounted cash flows. Measurement of the impairment loss, if any, is based on the fair value of the asset, which is determined by an income, cost or market approach.

Deferred Income Taxes and Potential Assessments

According to the Income Taxes topic of the FASB Codification, a valuation allowance is required to be established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized. The FASB Codification provides important factors in determining whether a deferred tax asset will be realized, including whether there has been sufficient taxable income in recent years and whether sufficient income can reasonably be expected in future years in order to utilize the deferred tax asset. The Company has evaluated the need to maintain a valuation allowance for deferred tax assets based on its assessment of whether it is more likely than not that deferred tax benefits would be realized through the generation of future taxable income. Appropriate consideration was given to all available evidence, both positive and negative, in assessing the need for a valuation allowance. In determining whether a valuation allowance is required, many factors are considered, including the specific taxing jurisdiction, the carryforward period, reversals of existing taxable temporary differences, cumulative pretax book earnings, income tax strategies and forecasted earnings for the entities in each jurisdiction.

As of December 31, 2021, the Company has a valuation allowance of \$38 million against its net deferred tax assets in certain foreign jurisdictions and against domestic deferred tax assets related to certain federal tax credit carryforwards, certain state net operating loss carryforwards and certain state tax credit carryforwards. As of December 31, 2020, a total valuation allowance of \$34 million was recorded.

As of December 31, 2021, the Company has provided for deferred U.S. income taxes attributable to future withholding tax expense related to the Company's equity investment in the joint venture, Rengo Riverwood Packaging, Ltd. In addition, the Company provided deferred income taxes for future Canadian withholding tax to the extent of excess cash available for distribution after consideration of working capital needs and other debt settlement of its Canadian subsidiary, Graphic Packaging International Canada, ULC. The Company continues to assert that it is permanently reinvested in the cumulative earnings of its Canadian subsidiary in excess of the amount of cash that is on hand and available for distribution after consideration of working capital needs and other debt settlement. Due to the deemed taxation of all post-1986 earnings and profits required by the Act, the Company has determined that no deferred tax liability should be recorded related to the outside basis difference of its Canadian subsidiary of approximately \$51 million as of December 31, 2021.

The Company has not provided for deferred U.S. income taxes on outside basis differences of approximately \$33 million in its other international subsidiaries because of the Company's intention to indefinitely reinvest these earnings outside the U.S. The Company's assertion with respect to these subsidiaries remains unchanged, despite the deemed taxation of all post-1986 earnings and profits required by the Act. The determination of the amount of the unrecognized deferred income tax liability (primarily withholding tax in certain jurisdictions and some state tax) on the unremitted earnings or any other associated outside basis differences is not practicable because of the complexities associated with the calculation.

The Company has elected to recognize global intangible low-taxed income ("GILTI") as period cost as incurred, therefore there are no deferred taxes recognized for basis differences that are expected to impact the amount of the GILTI inclusion upon reversal.

NEW ACCOUNTING STANDARDS

For a discussion of recent accounting pronouncements impacting the Company, see "Note 1 - Nature of Business and Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

BUSINESS OUTLOOK

Total capital investment for 2022 is expected to be in the range of \$440 million to \$460 million.

The Company also expects the following in 2022:

- Depreciation and amortization expense of approximately \$580 million, including pension amortization and excluding \$5 million of accelerated depreciation related to exit activities.
- Pension plan contributions between \$10 million and \$20 million excluding \$6 million reflected as a contribution to the remaining U.S defined benefit plan that effectively utilizes the excess balance related to the terminated U.S. defined benefit plan.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

The Company does not trade or use derivative instruments with the objective of earning financial gains on interest or currency rates, nor does it use leveraged instruments or instruments where there are no underlying exposures identified.

Interest Rates

The Company is exposed to changes in interest rates, primarily as a result of its short-term and long-term debt, which include both fixed and floating rate debt. The Company uses interest rate swap agreements effectively to fix the LIBOR rate on certain variable rate borrowings. At December 31, 2021, the Company had active interest rate swap agreements with a notional amount of \$200 million expiring in January 2022.

The table below sets forth interest rate sensitivity information related to the Company's debt.

Long-Term Debt Principal Amount by Maturity-Average Interest Rate
Expected Maturity Date

<i>In millions</i>	2022		2023		2024		2025		2026		Thereafter	Total	Fair Value			
Total Debt																
Fixed Rate	\$	250	\$	6	\$	700	\$	—	\$	512	\$	2,256	\$	3,724	\$	3,770
Average Interest Rate		4.88 %		1.92 %		2.24 %		2.25 %		2.05 %		3.42 %				
Variable Rate	\$	14	\$	27	\$	39	\$	39	\$	1,583	\$	250	\$	1,952	\$	1,945
		LIBOR+Spread		LIBOR+Spread		LIBOR+Spread		—		—		—		—		—

Total Interest Rate Swaps-Notional Amount by Expiration-Average Swap Rate
Expected Maturity Date

<i>In millions</i>	2022		2023		2024		2025		2026		Thereafter	Total		
Notional	\$	200	\$	—	\$	—	\$	—	\$	—	\$	—	\$	200
Average Pay Rate		2.87 %		— %		— %		— %		— %		— %		— %
Average Receive Rate		LIBOR		—		—		—		—		—		—

Foreign Exchange Rates

The Company also enters into forward exchange contracts to hedge certain other anticipated foreign currency transactions. The purpose of these contracts is to protect the Company from the risk that the eventual functional currency cash flows resulting from anticipated foreign currency transactions will be adversely affected by changes in exchange rates.

During the years ended December 31, 2021 and 2020, there were no amounts reclassified to earnings in connection with forecasted transactions that were no longer considered probable of occurring and there was no amount of ineffectiveness related to changes in the fair value of foreign currency forward contracts. Additionally, there were no amounts excluded from the measure of effectiveness during the years ended December 31, 2021 and 2020.

Derivatives not Designated as Hedges

The Company enters into forward exchange contracts to effectively hedge substantially all receivables resulting from transactions denominated in foreign currencies. The purpose of these forward exchange contracts is to protect the Company from the risk that the eventual functional currency cash flows resulting from the collection of these receivables will be adversely affected by changes in exchange rates. At December 31, 2021, multiple foreign currency forward exchange contracts existed, with maturities ranging up to six months. Those forward currency exchange contracts outstanding at December 31, 2021, when aggregated and measured in U.S. dollars at December 31, 2021 contractual rates, had net notional amounts totaling \$103 million. The Company continuously monitors these forward exchange contracts and adjusts accordingly to minimize the exposure.

Deal Contingent Hedge

On May 14, 2021, in connection with the AR Packaging acquisition, the Company entered into deal contingent foreign exchange forward contracts, with no upfront cash cost, to hedge €700 million of the acquisition price. These forward contracts settled October 29, 2021 concurrently with the acquisition of AR Packaging and are accounted for as derivatives under ASC 815, Derivatives and Hedging. Unrealized losses resulting from these contracts were recognized in Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net on the Company's Condensed Consolidated Statements of Operations. For more information, see "Note 11 — Fair Value Measurement" in the Notes to Consolidated Financial Statements included herein under "Item 8., Financial Statements and Supplementary Data."

Natural Gas Contracts

The Company has hedged a portion of its expected natural gas usage for 2022. The carrying amount and fair value of the natural gas swap contracts is a net asset of \$2 million as of December 31, 2021. Such contracts are designated as cash flow hedges and are accounted for by deferring the quarterly change in fair value of the outstanding contracts in Accumulated Other Comprehensive Loss in Shareholders' Equity. The resulting gain or loss is reclassified into Cost of Sales concurrently with the recognition of the commodity consumed.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO FINANCIAL STATEMENTS

	Page
GRAPHIC PACKAGING HOLDING COMPANY	
Consolidated Statements of Operations for each of the three years in the period ended December 31, 2021	40
Consolidated Statements of Comprehensive Income for each of the three years in the period ended December 31, 2021	41
Consolidated Balance Sheets as of December 31, 2021 and 2020	41
Consolidated Statements of Shareholders' Equity for each of the three years in the period ended December 31, 2021	43
Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2021	44
Notes to Consolidated Financial Statements	45
Reports of Independent Registered Public Accounting Firms (PricewaterhouseCoopers LLP PCAOB ID No. 238 and Ernst & Young LLP PCAOB ID No. 42)	84

GRAPHIC PACKAGING HOLDING COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS

<i>In millions, except per share amounts</i>	Year Ended December 31,		
	2021	2020	2019
Net Sales	\$ 7,156	\$ 6,560	\$ 6,160
Cost of Sales	6,085	5,460	5,068
Selling, General and Administrative	528	513	512
Other (Income) Expense, Net	(2)	2	8
Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net	138	61	38
Income from Operations	407	524	534
Nonoperating Pension and Postretirement Benefit Income (Expense)	5	(151)	(39)
Interest Expense, Net	(123)	(129)	(141)
Income before Income Taxes and Equity Income of Unconsolidated Entity	289	244	354
Income Tax Expense	(74)	(42)	(76)
Income before Equity Income of Unconsolidated Entity	215	202	278
Equity Income of Unconsolidated Entity	1	1	—
Net Income	\$ 216	\$ 203	\$ 278
Net Income Attributable to Noncontrolling Interests	(12)	(36)	(71)
Net Income Attributable to Graphic Packaging Holding Company	\$ 204	\$ 167	\$ 207
Net Income Per Share Attributable to Graphic Packaging Holding Company — Basic	\$ 0.69	\$ 0.60	\$ 0.70
Net Income Per Share Attributable to Graphic Packaging Holding Company — Diluted	\$ 0.68	\$ 0.60	\$ 0.70

The accompanying notes are an integral part of the consolidated financial statements.

GRAPHIC PACKAGING HOLDING COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Year Ended December 31, 2021					
<i>In millions</i>	Graphic Packaging Holding Company	Noncontrolling Interest		Total	
Net Income	\$ 204	\$	12	\$ 216	
Other Comprehensive Income (Loss), Net of Tax:					
Derivative Instruments	5		1	6	
Pension and Postretirement Benefit Plans	45		—	45	
Currency Translation Adjustment	(28)		—	(28)	
Total Other Comprehensive Income, Net of Tax	22		1	23	
Total Comprehensive Income	\$ 226	\$	13	\$ 239	
Year Ended December 31, 2020					
<i>In millions</i>	Graphic Packaging Holding Company	Noncontrolling Interest		Redeemable Noncontrolling Interest	Total
Net Income (Loss)	\$ 167	\$	39	\$ (3)	\$ 203
Other Comprehensive Income (Loss), Net of Tax:					
Derivative Instruments	4		1	—	5
Pension and Postretirement Benefit Plans	100		29	10	139
Currency Translation Adjustment	17		2	(1)	18
Total Other Comprehensive Income, Net of Tax	121		32	9	162
Total Comprehensive Income	\$ 288	\$	71	\$ 6	\$ 365
Year Ended December 31, 2019					
Net Income	\$ 207	\$	55	\$ 16	\$ 278
Other Comprehensive (Loss) Income, Net of Tax:					
Derivative Instruments	(6)		(1)	—	(7)
Pension and Postretirement Benefit Plans	8		2	1	11
Currency Translation Adjustment	10		2	—	12
Total Other Comprehensive Income, Net of Tax	12		3	1	16
Total Comprehensive Income	\$ 219	\$	58	\$ 17	\$ 294

The accompanying notes are an integral part of the consolidated financial statements.

**GRAPHIC PACKAGING HOLDING COMPANY
CONSOLIDATED BALANCE SHEETS**

<i>In millions, except share and per share amounts</i>	December 31,	
	2021	2020
ASSETS		
Current Assets:		
Cash and Cash Equivalents	\$ 172	\$ 179
Receivables, Net	859	654
Inventories, Net	1,387	1,128
Other Current Assets	84	59
Total Current Assets	2,502	2,020
Property, Plant and Equipment, Net	4,677	3,560
Goodwill	2,015	1,478
Intangible Assets, Net	868	437
Other Assets	395	310
Total Assets	\$ 10,457	\$ 7,805
LIABILITIES		
Current Liabilities:		
Short-Term Debt and Current Portion of Long-Term Debt	\$ 279	\$ 497
Accounts Payable	1,125	825
Compensation and Employee Benefits	211	213
Interest Payable	35	30
Other Accrued Liabilities	399	291
Total Current Liabilities	2,049	1,856
Long-Term Debt	5,515	3,147
Deferred Income Tax Liabilities	579	540
Accrued Pension and Postretirement Benefits	139	130
Other Noncurrent Liabilities	282	292
SHAREHOLDERS' EQUITY		
Preferred Stock, par value \$.01 per share; 100,000,000 shares authorized; no shares issued or outstanding	—	—
Common Stock, par value \$.01 per share; 1,000,000,000 shares authorized; 307,103,551 and 267,726,373 shares issued and outstanding at December 31, 2021 and December 31, 2020, respectively	3	3
Capital in Excess of Par Value	2,046	1,715
Retained Earnings (Accumulated Deficit)	66	(48)
Accumulated Other Comprehensive Loss	(224)	(246)
Total Graphic Packaging Holding Company Shareholders' Equity	1,891	1,424
Noncontrolling Interest	2	416
Total Equity	1,893	1,840
Total Liabilities and Shareholders' Equity	\$ 10,457	\$ 7,805

The accompanying notes are an integral part of the consolidated financial statements.

GRAPHIC PACKAGING HOLDING COMPANY
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

<i>In millions, except share amounts</i>	Common Stock		Capital in Excess of Par Value	(Accumulated Deficit) Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity	Redeemable Noncontrolling Interest
	Shares	Amount						
Balances at December 31, 2018	299,807,779	\$ 3	\$ 1,944	\$ 10	\$ (379)	\$ 439	\$ 2,017	\$ 276
Net Income	—	—	—	207	—	55	262	16
Reclassification to Redeemable Noncontrolling Interest for Share Repurchases	—	—	—	—	—	13	13	(13)
Redeemable Noncontrolling Interest Redemption Value Mark-Up	—	—	(30)	—	—	—	(30)	30
Distribution of Membership Interest	—	—	—	—	—	(22)	(22)	(6)
Other Comprehensive (Loss) Income, Net of Tax:								
Derivative Instruments	—	—	—	—	(6)	(1)	(7)	—
Pension and Postretirement Benefit Plans	—	—	—	—	8	2	10	1
Currency Translation Adjustment	—	—	—	—	10	2	12	—
Repurchase of Common Stock	(10,191,257)	—	(55)	(73)	—	—	(128)	—
Dividends Declared	—	—	—	(88)	—	—	(88)	—
Recognition of Stock-Based Compensation	—	—	18	—	—	—	18	—
Issuance of Shares for Stock-Based Awards	630,385	—	—	—	—	—	—	—
Balances at December 31, 2019	290,246,907	\$ 3	\$ 1,877	\$ 56	\$ (367)	\$ 488	\$ 2,057	\$ 304
Net Income (Loss)	—	—	—	167	—	39	206	(3)
Redeemable Noncontrolling Interest Redemption Value Adjustment	—	—	12	—	—	—	12	(12)
Distribution of Membership Interest	—	—	—	—	—	(19)	(19)	(2)
Other Comprehensive Income, Net of Tax:								
Derivative Instruments	—	—	—	—	4	1	5	—
Pension and Postretirement Benefit Plans	—	—	—	—	100	29	129	10
Currency Translation Adjustment	—	—	—	—	17	2	19	(1)
Repurchase of Common Stock	(23,420,010)	—	(128)	(188)	—	—	(316)	—
Redemption of IP's Ownership Interest	—	—	(87)	—	—	(124)	(211)	(296)
Tax Effect IP Redemption	—	—	16	—	—	—	16	—
Dividends Declared	—	—	—	(83)	—	—	(83)	—
Recognition of Stock-Based Compensation	—	—	25	—	—	—	25	—
Issuance of Shares for Stock-Based Awards	899,476	—	—	—	—	—	—	—
Balances at December 31, 2020	267,726,373	\$ 3	\$ 1,715	\$ (48)	\$ (246)	\$ 416	\$ 1,840	\$ —
Net Income	—	—	—	204	—	12	216	—
Distribution of Membership Interest	—	—	—	—	—	(6)	(6)	—
Other Comprehensive Income, Net of Tax:								
Derivative Instruments	—	—	—	—	5	1	6	—
Pension and Postretirement Benefit Plans	—	—	—	—	45	—	45	—
Currency Translation Adjustment	—	—	—	—	(28)	—	(28)	—
Redemption of IP's Ownership Interest	38,080,072	—	319	—	—	(423)	(104)	—
Dividends Declared	—	—	—	(90)	—	—	(90)	—
Investment in Subsidiaries	—	—	—	—	—	2	2	—
Recognition of Stock-Based Compensation	—	—	12	—	—	—	12	—
Issuance of Shares for Stock-Based Awards	1,297,106	—	—	—	—	—	—	—
Balances at December 31, 2021	307,103,551	\$ 3	\$ 2,046	\$ 66	\$ (224)	\$ 2	\$ 1,893	\$ —

The accompanying notes are an integral part of the consolidated financial statements.

GRAPHIC PACKAGING HOLDING COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net Income	\$ 216	\$ 203	\$ 278
Adjustments to Reconcile Net Income to Net Cash Provided by (Used in) Operating Activities:			
Depreciation and Amortization	489	476	447
Amortization of Deferred Debt Issuance Costs	9	6	5
Deferred Income Taxes	55	(1)	53
Amount of Postretirement Expense (Less) Greater Than Funding	(24)	147	42
Other, Net	93	13	15
Changes in Operating Assets and Liabilities, Net of Acquisitions (See Note 3)	(229)	(19)	(174)
Net Cash Provided by Operating Activities	609	825	666
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital Spending	(775)	(616)	(331)
Packaging Machinery Spending	(27)	(30)	(22)
Acquisition of Businesses, Net of Cash Acquired	(1,704)	(121)	(55)
Beneficial Interest on Sold Receivables	130	136	344
Beneficial Interest Obtained in Exchange for Proceeds	(11)	(9)	(156)
Other, Net	(5)	(8)	(5)
Net Cash Used in Investing Activities	(2,392)	(648)	(225)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repurchase of Common Stock	—	(316)	(129)
Payments on Debt	(16)	(37)	(37)
Proceeds from Issuance of Debt	2,965	800	300
Retirement of Long-Term Debt	(1,626)	—	—
Redemption of Noncontrolling Interest	(150)	(500)	—
Borrowings under Revolving Credit Facilities	4,485	2,614	2,498
Payments on Revolving Credit Facilities	(3,649)	(2,597)	(2,865)
IP Tax Receivable Agreement Payment	(109)	—	—
Debt Issuance Costs	(27)	(14)	(5)
Repurchase of Common Stock related to Share-Based Payments	(15)	(9)	(4)
Dividends and Distributions Paid to GPIP Partner	(92)	(103)	(113)
Other, Net	12	10	(6)
Net Cash Provided by (Used in) Financing Activities	1,778	(152)	(361)
EFFECT OF EXCHANGE RATE CHANGES ON CASH	(2)	1	2
Net (Decrease) Increase in Cash and Cash Equivalents	(7)	26	82
Cash and Cash Equivalents at Beginning of Year	179	153	71
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 172	\$ 179	\$ 153
Non-cash Investing Activities:			
Beneficial Interest Obtained (Sold) in Exchange for Trade Receivables	\$ 121	\$ 135	\$ (69)
Right-of-Use Assets Obtained in Exchange for New Operating Lease Liabilities	\$ 118	\$ 71	\$ 73
Non-cash Financing Activities:			
Right-of-Use Assets Obtained in Exchange for New Finance Lease Liabilities	\$ 11	\$ —	\$ 16
Non-cash Exchange of Stock Issuance for Redemption of Noncontrolling Interest	\$ (652)	\$ —	\$ —

The accompanying notes are an integral part of the consolidated financial statements.

**GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

NOTE 1. NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Business

Graphic Packaging Holding Company (“GPHC” and, together with its subsidiaries, the “Company”) is committed to providing consumer packaging that makes a world of difference. The Company is a leading provider of sustainable, fiber-based consumer packaging solutions for a wide variety of products to food, beverage, foodservice and other consumer products companies. The Company operates on a global basis, is one of the largest producers of folding cartons in the United States (“U.S.”) and Europe, and holds leading market positions in coated-recycled paperboard (“CRB”), coated unbleached kraft paperboard (“CUK”) and solid bleached sulfate paperboard (“SBS”).

The Company’s customers include many of the world’s most widely recognized companies and brands with prominent market positions in beverage, food, foodservice, and other consumer products. The Company strives to provide its customers with innovative sustainable packaging solutions designed to deliver marketing and performance benefits at a competitive cost by capitalizing on its low-cost paperboard mills and converting plants, its proprietary carton and packaging designs, and its commitment to quality and service.

On January 1, 2018, GPHC, a Delaware corporation, International Paper Company, a New York corporation (“IP”), Graphic Packaging International Partners, LLC, a Delaware limited liability company formerly known as Gazelle Newco LLC and a wholly-owned subsidiary of the Company (“GPIP”), and Graphic Packaging International, LLC, a Delaware limited liability company formerly known as Graphic Packaging International, Inc. and a direct subsidiary of GPIP (“GPIL”), completed a series of transactions pursuant to an agreement dated October 23, 2017 among the foregoing parties (the “Transaction Agreement”). Pursuant to the Transaction Agreement (i) a wholly-owned subsidiary of the Company transferred its ownership interest in GPIL to GPIP; (ii) IP transferred its North America Consumer Packaging (“NACP”) business to GPIP, which was then subsequently transferred to GPIL; (iii) GPIP issued membership interests to IP, and IP was admitted as a member of GPIP; and (iv) GPIL assumed certain indebtedness of IP (the “NACP Combination”).

During 2020, GPIP purchased 32.5 million partnership units from IP for \$500 million in cash, fully redeeming the 18.2 million partnership units that were required to be redeemed in cash. On February 16, 2021, the Company announced that IP had notified the Company of its intent to exchange additional partnership units. Per an agreement between the parties, on February 19, 2021, GPIP purchased 9.3 million partnership units from IP for \$150 million in cash, and IP exchanged 15.3 million partnership units for an equivalent number of shares of GPHC common stock. On May 21, 2021, IP exchanged its remaining 22.8 million partnership units for an equivalent number of shares of GPHC common stock. As required by the parties’ agreement, these shares were immediately sold by IP. As a result, IP has no ownership interest remaining in GPIP as of May 21, 2021.

In connection with both the February 19, 2021 and May 21, 2021 exchanges, pursuant to elections under Section 754 of the Internal Revenue Code, the Company obtained an increase with respect to the tax basis in the assets of GPIP and certain of its subsidiaries. As a result, payments pursuant to the Tax Receivable Agreement (“TRA”), executed in connection with the formation of GPIP on January 1, 2018, are required. The TRA provides for the payment by the Company to IP of 50% of the present value of any tax benefits projected to be realized by the Company upon IP’s exchange of its membership interest into GPHC stock. As such, the Company recorded TRA liabilities of \$ 43 million and \$66 million, for the February 19, 2021 and May 21, 2021 exchanges, respectively. The TRA liabilities were recorded through adjustments to Capital in Excess of Par Value during the first and second quarters of 2021, respectively. In accordance with the terms of the TRA, the Company settled the liability for the February exchange during the third quarter and settled the liability for the May exchange during the fourth quarter of 2021. Additionally, the Company recorded an adjustment through Capital in Excess of Par Value to decrease its net domestic Deferred Tax Liability (“DTL”) by \$175 million in connection with both the February and May exchanges. The decrease in the DTL reflects the change in the outside basis difference associated with the Company’s investment in GPIP and includes the impact of the tax basis step up triggered by the exchanges pursuant to Section 754 of the Internal Revenue Code in addition to other changes to book and tax basis as a result of the Company’s increased ownership interest in GPIP.

Basic of Presentation and Principles of Consolidation

The Company’s Consolidated Financial Statements include all subsidiaries in which the Company has the ability to exercise direct or indirect control over operating and financial policies. Intercompany transactions and balances are eliminated in consolidation.

The Company, through its GPIL subsidiary, is a party to a Japanese joint venture, Rengo Riverwood Packaging, Ltd. in which it holds a 50% ownership interest that is accounted for using the equity method.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting periods. Actual results could differ from these estimates, and changes in these estimates are recorded when known. Estimates are used in accounting for, among other things, pension benefits, retained insurable risks, slow-moving and obsolete inventory, allowance for doubtful accounts, useful lives for depreciation and amortization, impairment testing of goodwill and long-lived assets, fair values related to acquisition accounting, fair value of derivative financial instruments, share based compensation, deferred income tax assets and potential income tax assessments, and loss contingencies.

Cash and Cash Equivalents

Cash and cash equivalents include bank deposits and other marketable securities that are highly liquid with maturities of three months or less.

Accounts Receivable and Allowances

Accounts receivable are stated at the amount owed by the customer, net of an allowance for estimated uncollectible accounts, returns and allowances, and cash discounts. The allowance for doubtful accounts is estimated based on historical experience, current economic conditions and the creditworthiness of customers. Receivables are charged to the allowance when determined to be no longer collectible.

The Company has entered into agreements to sell, on a revolving basis, certain trade accounts receivable to third party financial institutions. Transfers under these agreements meet the requirements to be accounted for as sales in accordance with the *Transfers and Servicing* topic of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification (the "Codification"). The loss on sale is not material and is included in Other (Income) Expense, Net line item on the Condensed Consolidated Statement of Operations. The following table summarizes the activity under these programs for the year ended December 31, 2021 and 2020, respectively:

<i>In millions</i>	<u>Year Ended December 31,</u>	
	<u>2021</u>	<u>2020</u>
Receivables Sold and Derecognized	\$ 2,947	\$ 2,850
Proceeds Collected on Behalf of Financial Institutions	2,970	2,787
Net Proceeds (Paid to) Received From Financial Institutions	(6)	55
Deferred Purchase Price at December 31 ^(a)	4	5
Pledged Receivables at December 31	180	201

^(a) Included in Other Current Assets on the Condensed Consolidated Balance Sheet and represents a beneficial interest in the receivables sold to the financial institutions, which is a Level 3 fair value measure.

The Company participates in supply chain financing arrangements offered by certain customers and has entered into various factoring arrangements that also qualify for sale accounting in accordance with the *Transfers and Servicing* topic of the FASB Codification. For the years ended December 31, 2021 and 2020, the Company sold receivables of \$693 million and \$368 million respectively, related to these factoring arrangements.

Receivables sold under all programs subject to continuing involvement, which consists principally of collection services, were \$613 million and \$621 million as of December 31, 2021 and 2020, respectively.

Concentration of Credit Risk

The Company's cash, cash equivalents, and accounts receivable are potentially subject to concentration of credit risk. Cash and cash equivalents are placed with financial institutions that management believes are of high credit quality. Accounts receivable are derived from revenue earned from customers located in the U.S. and internationally and generally do not require collateral. For the years ended December 31, 2021, 2020, and 2019, no customer accounted for more than 10% of net sales.

Inventories

Inventories are stated at the lower of cost and net realizable value with cost determined based on standard (which approximates actual), average or actual cost. Work in progress and finished goods inventories are valued at the cost of raw material consumed plus direct manufacturing costs (such as labor, utilities and supplies) as incurred and an applicable portion of manufacturing overhead. Inventories are stated net of an allowance for slow-moving and obsolete inventory.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Betterments, renewals and extraordinary repairs that extend the life of the asset are capitalized; other repairs and maintenance charges are expensed as incurred. The Company's cost and related accumulated depreciation applicable to assets retired or sold are removed from the accounts and the gain or loss on disposition is included in income from operations.

Interest is capitalized on assets under construction for one year or longer with an estimated spending of \$1 million or more. The capitalized interest is recorded as part of the asset to which it relates and is amortized over the asset's estimated useful life. Capitalized interest was \$14 million, \$7 million and \$3 million for the years ended December 31, 2021, 2020 and 2019, respectively.

The Company assesses its long-lived assets, including certain identifiable intangibles, for impairment whenever events or circumstances indicate that the carrying value of an asset may not be recoverable. To analyze recoverability, the Company projects future cash flows, undiscounted and before interest, over the remaining life of such assets. If these projected cash flows are less than the carrying amount, an impairment would be recognized, resulting in a write-down of assets with a corresponding charge to earnings. The impairment loss is measured based upon the difference between the carrying amount and the fair value of the assets. The Company assesses the appropriateness of the useful life of its long-lived assets periodically.

Depreciation and Amortization

Depreciation is computed using the straight-line method based on the following estimated useful lives of the related assets:

Buildings	40 years
Land improvements	15 years
Machinery and equipment	3 to 40 years
Furniture and fixtures	10 years
Automobiles, trucks and tractors	3 to 5 years

Depreciation expense, including the depreciation expense of assets under finance leases, for 2021, 2020 and 2019 was \$20 million, \$414 million and \$388 million, respectively.

Intangible Assets

Intangible assets with a determinable life are amortized on a straight-line or accelerated basis over their useful lives. The amortization expense for each intangible asset is recorded in the Consolidated Statements of Operations according to the nature of that asset.

Goodwill is the Company's only intangible asset not subject to amortization. The following table displays the intangible assets that continue to be subject to amortization and accumulated amortization expense as of December 31, 2021 and 2020:

<i>In millions</i>	December 31, 2021			December 31, 2020		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizable Intangible Assets:						
Customer Relationships ^(a)	\$ 1,462	\$ (621)	\$ 841	\$ 965	\$ (556)	\$ 409
Patents, Trademarks, Licenses, and Leases	140	(113)	27	141	(113)	28
Total	\$ 1,602	\$ (734)	\$ 868	\$ 1,106	\$ (669)	\$ 437

^(a) Please see "Note 4- Business Combinations" for the intangibles acquired with the AR Packaging acquisition.

The Company recorded amortization expense for the years ended December 31, 2021, 2020 and 2019 of \$9 million, \$62 million and \$59 million, respectively. The Company expects amortization expense for the next five consecutive years to be approximately as follows: \$95 million, \$92 million, \$90 million, \$86 million, and \$86 million.

Goodwill

The Company tests goodwill for impairment annually as of October 1, as well as whenever events or changes in circumstances suggest that the estimated fair value of a reporting unit may no longer exceed its carrying amount.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company tests goodwill for impairment at the reporting unit level, which is an operating segment or a level below an operating segment, which is referred to as a component. A component of an operating segment is a reporting unit if the component constitutes a business for which discrete financial information is available and management regularly reviews the operating results of that component. Two or more components of an operating segment are aggregated and deemed a single reporting unit if the components have similar economic characteristics.

Potential goodwill impairment is measured at the reporting unit level by comparing the reporting unit's carrying amount (including goodwill), to the fair value of the reporting unit. When performing the quantitative analysis, the estimated fair value of each reporting unit is determined by utilizing a discounted cash flow analysis based on the Company's forecasts, discounted using a weighted average cost of capital and market indicators of terminal year cash flows based upon a multiple of EBITDA. If the carrying amount of a reporting unit exceeds its estimated fair value, goodwill is considered impaired. In determining fair value, management relies on and considers a number of factors, including but not limited to, future operating results, business plans, economic projections of revenues and operating margins, forecasts including future cash flows, and market data and analysis, including market capitalization. The assumptions used are based on what a hypothetical market participant would use in estimating fair value. Fair value determinations are sensitive to changes in the factors described above. There are inherent uncertainties related to these factors and judgments in applying them to the analysis of goodwill impairment.

Periodically, the Company may perform a qualitative impairment analysis of goodwill associated with each of its reporting units to determine if it is more likely than not that the carrying value of a reporting unit exceeded its fair value. However, the Company performed a quantitative impairment test as of October 1, 2021, and concluded goodwill was not impaired for any of its reporting units.

The following is a rollforward of goodwill by reportable segment:

<i>In millions</i>	Paperboard Mills	Americas Paperboard Packaging	Europe Paperboard Packaging	Corporate/Other ^(a)	Total
Balance at December 31, 2019	\$ 507	\$ 897	\$ 60	\$ 14	\$ 1,478
Acquisition of Businesses	—	—	—	—	—
Foreign Currency Effects	(1)	3	(1)	(1)	—
Balance at December 31, 2020	\$ 506	\$ 900	\$ 59	\$ 13	\$ 1,478
Acquisition of Businesses	—	68	475	—	543
Foreign Currency Effects	—	—	(6)	—	(6)
Balance at December 31, 2021	\$ 506	\$ 968	\$ 528	\$ 13	\$ 2,015

^(a) Includes Australia operating segment.

Retained Insurable Risks

It is the Company's policy to self-insure or fund a portion of certain expected losses related to group health benefits and workers' compensation claims. Provisions for expected losses are recorded based on the Company's estimates, on an undiscounted basis, of the aggregate liabilities for known claims and estimated claims incurred but not reported.

Asset Retirement Obligations

Asset retirement obligations are accounted for in accordance with the provisions of the *Asset Retirement and Environmental Obligations* topic of the FASB Codification. A liability and asset are recorded equal to the present value of the estimated costs associated with the retirement of long-lived assets where a legal or contractual obligation exists and the liability can be reasonably estimated. The liability is accreted over time and the asset is depreciated over the remaining life of the asset. Upon settlement of the liability, the Company will recognize a gain or loss for any difference between the settlement amount and the liability recorded. Asset retirement obligations with indeterminate settlement dates are not recorded until such time that a reasonable estimate may be made. The Company's asset retirement obligations consist primarily of landfill closure and post-closure costs at certain of our mills. At December 31, 2021 and 2020, the Company had liabilities of \$12 million and \$11 million, respectively. The liabilities are primarily reflected as Other Noncurrent Liabilities in the Company's Consolidated Balance Sheets.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

International Currency

The functional currency of the international subsidiaries is usually the local currency for the country in which the subsidiaries own their primary assets. The translation of the applicable currencies into U.S. dollars is performed for balance sheet accounts using current exchange rates in effect at the balance sheet date and for revenue and expense accounts using an average exchange rate during the period. Any related translation adjustments are recorded directly to a separate component of Shareholders' Equity, unless there is a sale or substantially complete liquidation of the underlying foreign investments. Gains and losses on foreign currency transactions are included in Other Expense, Net for the period in which the exchange rate changes.

The Company pursues a currency hedging program which utilizes derivatives to reduce the impact of foreign currency exchange fluctuations on its consolidated financial results. Under this program, the Company has entered into forward exchange contracts in the normal course of business to hedge certain foreign currency denominated transactions. Realized and unrealized gains and losses on these forward contracts are included in the measurement of the basis of the related foreign currency transaction when recorded.

Revenue Recognition

The Company has two primary activities, manufacturing and converting paperboard, from which it generates revenue from contracts with customers. Revenue is disaggregated primarily by geography and type of activity as further explained in "Note 15 - Business Segment and Geographic Area Information." All reportable segments and the Australia and Pacific Rim operating segments recognize revenue under the same method, allocate transaction price using similar methods, and have similar economic factors impacting the uncertainty of revenue and related cash flows.

Revenue is recognized on the Company's annual and multi-year supply contracts when the Company satisfies the performance obligation by transferring control over the product or service to a customer, which is generally based on shipping terms and passage of title under the point-in-time method of recognition. For the years ended December 31, 2021, 2020 and 2019, the Company recognized \$7,131 million, \$6,537 million and \$6,141 million, respectively, of revenue from contracts with customers.

The transaction price allocated to each performance obligation consists of the stand-alone selling price, estimates of rebates and other sales or contract renewal incentives, and cash discounts and sales returns ("Variable Consideration") and excludes sales tax. Estimates are made for Variable Consideration based on contract terms and historical experience of actual results and are applied to the performance obligations as they are satisfied. Purchases by the Company's principal customers are manufactured and shipped with minimal lead time, therefore performance obligations are generally satisfied shortly after manufacturing and shipment. The Company uses standard payment terms that are consistent with industry practice.

The Company's contract assets consist primarily of contract renewal incentive payments to customers which are amortized over the period in which performance obligations related to the contract renewal are satisfied. As of December 31, 2021 and 2020, contract assets were \$17 million and \$15 million, respectively. The Company's contract liabilities consist principally of rebates, and as of December 31, 2021 and 2020 were \$61 million and \$56 million, respectively.

The Company did not have a material amount relating to backlog orders at December 31, 2021 or 2020.

Shipping and Handling

The Company includes shipping and handling costs in Cost of Sales.

Research and Development

Research and development costs, which relate primarily to the development and design of new packaging machines and products and are recorded as a component of Selling, General and Administrative expenses, are expensed as incurred. Expenses for the years ended December 31, 2021, 2020 and 2019 were \$0 million, \$10 million and \$9 million, respectively.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net

The following table summarizes the transactions recorded in Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net in the Consolidated Statements of Operations for the year ended December 31:

<i>In millions</i>	2021	2020	2019
Charges Associated with Business Combinations ^(a)	\$ 84	\$ (2)	\$ 4
Shutdown and Other Special Charges	33	38	24
Exit Activities ^(b)	21	25	10
Total	\$ 138	\$ 61	\$ 38

^(a) Includes \$48 million of unrealized losses resulting from deal contingent foreign exchange forward contracts from the AR Packaging acquisition (see "Note 11 - Fair Value Measurement").

^(b) Relates to the Company's CRB mills, converting facility closures and the PM1 containerboard machine exit activities (see "Note 18 - Exit Activities").

2021

During 2019, the Company announced its plans to invest in a new CRB paper machine in Kalamazoo, Michigan. At the time of the announcement, the Company expected to close two of its smaller CRB Mills in 2022 in order to remain capacity neutral. During the third quarter of 2021, the Company decided to continue to operate one of the two original smaller CRB mills at least through 2022. Severance, retention, start-up costs, and other charges associated with this project are included in Exit Activities in the table above. For more information, see "Note 18 - Exit Activities."

During 2019, the Company began a three-year program to dismantle and dispose of idle and abandoned assets primarily at the paperboard mills. Charges related to this program for 2021 and 2020 were \$25 million and \$14 million, respectively. Charges associated with this program are included in Shutdown and Other Special Charges in the table above.

On July 1, 2021, the Company acquired substantially all the assets of Americraft Carton Inc. ("Americraft"), the largest remaining independent folding carton converter in North America for \$292 million. The acquisition included seven converting plants across the United States and is reported within the Americas Paperboard Packaging reportable segment. Charges associated with this acquisition are included in Charges Associated with Business Combinations in the table above. For more information, see "Note 4 - Business Combinations."

On November 1, 2021, the Company acquired all the shares of AR Packaging Group AB ("AR Packaging"), Europe's second largest producer of fiber-based consumer packaging, for \$1,412 million in cash, net of cash acquired of \$75 million, subject to customary adjustments. The acquisition included 30 converting plants in 13 countries and is reported within the Europe Paperboard Packaging reportable segment. The costs associated with this acquisition are included in Charges Associated with Business Combinations in the table above. For more information, see "Note 4 - Business Combinations."

2020

On January 31, 2020, the Company acquired a folding carton facility from Quad/Graphics, Inc. ("Quad"), a commercial printing company. The converting facility is located in Omaha, Nebraska and is included in the Americas Paperboard Packaging reportable segment. The Company paid \$41 million using existing cash and borrowings under its revolving credit facility. The costs associated with this acquisition are included in Charges Associated with Business Combinations in the table above. During the first quarter of 2021, the acquisition accounting for Quad was finalized. For more information, see "Note 4 - Business Combinations."

In March 2020, the Company made the decision to close the White Pigeon, Michigan CRB mill and shut down the PM1 containerboard machine in West Monroe, Louisiana. Charges associated with these projects are included in Exit Activities in the table above. For more information, see "Note 18 - Exit Activities."

On April 1, 2020, the Company acquired the Consumer Packaging Group business from Greif, Inc. ("Greif"), a leader in industrial packaging products and services. The acquisition included seven converting plants across the United States and will allow the company to increase its mill-to-converting plant integration over time. The Company paid approximately \$80 million using existing cash and borrowings under its revolving credit facility. The costs associated with this acquisition are included in Charges Associated with Business Combinations in the table above. During the second quarter of 2021, the acquisition accounting for Greif was finalized. For more information, see "Note 4 - Business Combinations."

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

In June 2020, the Company made the decision to close certain converting plants that were acquired from Greif. The Burlington, North Carolina converting facility and the Los Angeles, California converting facility were closed during 2020. Charges associated with these projects are included in Exit Activities in the table above. For more information, see "Note 18- Exit Activities."

The Company has established estimated liabilities related to the partial or complete withdrawal from certain multi-employment benefit plans for facilities which have been closed. During the second quarter of 2020, the Company increased its estimated withdrawal liability for these plans by \$12 million. During the fourth quarter of 2020, the Company entered into a settlement agreement with one of its closed multi-employment benefit plans and recorded a \$4 million reduction in its estimated withdrawal liability for this plan. These items were recorded in Shutdown and Other Special Charges in the table above. For more information, see "Note 8 - Pensions and Other Postretirement Benefits."

During 2020, the Company incurred incremental costs associated with paying payroll to employees during necessary quarantines due to COVID-19. In addition, the Company made one-time payments to front-line production employees and made contributions to local food banks in the communities where our manufacturing operations are located. The charges associated with these costs and payments were recorded in Shutdown and Other Special Charges in the table above.

2019

On August 1, 2019, the Company acquired substantially all the assets of Artistic Carton Company ("Artistic"), a diversified producer of folding cartons and CRB. The acquisition included two converting plants located in Auburn, Indiana and Elgin, Illinois (included in the Americas Paperboard Packaging reportable segment) and one CRB paperboard mill located in White Pigeon, Michigan (included in the Paperboard Mills reportable segment).

Share Repurchases and Dividends

On January 28, 2019, GPHC's board of directors authorized an additional share repurchase program to allow GPHC to purchase up to \$00 million of GPHC's issued and outstanding shares of common stock through open market purchases, privately negotiated transactions and Rule 10b5-1 plans (the "2019 share repurchase program"). A previous \$250 million share repurchase program was authorized on January 10, 2017 (the "2017 share repurchase program").

Share repurchases are reflected as a reduction of common stock for the par value of the shares, with any excess of share repurchase price over par value allocated between capital in excess of par value and accumulated deficit.

The Company did not repurchase any shares of its common stock under the 2019 share repurchase program for the year ended December 31, 2021.

The following presents GPHC's share repurchases for the years ended December 31, 2020 and 2019:

<i>Amount repurchased in millions</i>	Amount Repurchased	Number of Shares Repurchased	Average Price
2020	\$ 316	23,420,010	\$ 13.48
2019	\$ 128	10,191,257 ^(a)	\$ 12.55

^(a) Includes 7,400,171 shares under the 2017 share repurchase program thereby completing that program.

At December 31, 2021, GPHC had \$147 million remaining under the 2019 share repurchase program.

During 2021 and 2020, GPHC paid cash dividends of \$87 million and \$85 million, respectively.

Adoption of New Accounting Standards

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. This amendment modifies ASC 740 to simplify the accounting for income taxes. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. The Company adopted this new guidance during the three months ended March 31, 2021. The Company's adoption did not result in any changes in accounting principle upon transition and the impact to the Company's overall financial statements is immaterial.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Accounting Standards Not Yet Adopted

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. This standard provides temporary optional expedients and exceptions for applying GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from the LIBOR and other interbank offered rates to alternative reference rates, such as the Secured Overnight Financing Rate ("SOFR"). The ASU can be adopted after its issuance date through December 31, 2022. The Company is currently evaluating the impact of this new accounting guidance.

In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Acquired Contract Assets and Contract Liabilities*. Under the new guidance, the acquirer should determine what contract assets and/or contract liabilities it would have recorded under ASC 606 as of the acquisition date, as if the acquirer had entered into the original contract at the same date and on the same terms as the acquiree. The recognition and measurement of those contract assets and contract liabilities will likely be comparable to what the acquiree has recorded on its books under ASC 606 as of the acquisition date. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption is permitted, including in an interim period, for any period for which financial statements have not yet been issued. However, adoption in an interim period other than the first fiscal quarter requires an entity to apply the new guidance to all prior business combinations that have occurred since the beginning of the annual period in which the new guidance is adopted. The Company is currently evaluating the adoption date of ASU 2021-08 and the impact, if any, adoption will have on its financial position and results of operations.

NOTE 2. SUPPLEMENTAL BALANCE SHEET DATA

The following tables provide disclosure related to the components of certain line items included in our consolidated balance sheets.

Receivables, Net:

<i>In millions</i>	2021	2020
Trade	\$ 803	\$ 609
Less: Allowance	(18)	(12)
	785	597
Other	74	57
Total	\$ 859	\$ 654

Inventories, Net by major class:

<i>In millions</i>	2021	2020
Finished Goods	\$ 528	\$ 471
Work in Progress	194	133
Raw Materials	473	349
Supplies	192	175
Total	\$ 1,387	\$ 1,128

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Property, Plant and Equipment, Net: <i>In millions</i>	2021	2020
Property, Plant and Equipment, at Cost:		
Land and Improvements	\$ 175	\$ 137
Buildings ^(a)	908	671
Machinery and Equipment ^(b)	6,753	6,082
Construction-in-Progress	882	478
	8,718	7,368
Less: Accumulated Depreciation ^{(a)(b)}	(4,041)	(3,808)
Total	\$ 4,677	\$ 3,560

^(a) Includes gross assets under finance lease of \$14 million and related accumulated depreciation of \$13 million as of December 31, 2021, and gross assets under finance lease of \$106 million and related accumulated depreciation of \$11 million as of December 31, 2020.

^(b) Includes gross assets under finance lease of \$39 million and related accumulated depreciation of \$15 million as of December 31, 2021, and gross assets under finance lease of \$36 million and related accumulated depreciation of \$9 million as of December 31, 2020.

Other Accrued Liabilities: <i>In millions</i>	2021	2020
Fair Value of Derivatives, current portion	\$ —	\$ 9
Unfavorable Supply Agreement	7	—
Accrued Severance	10	3
Dividends Payable	23	20
Deferred Revenue	29	21
Accrued Customer Rebates	41	40
Other Accrued Taxes	50	57
Accrued Payables	56	38
Operating Lease Liabilities, current portion	73	61
Other ^(a)	110	42
Total	\$ 399	\$ 291

^(a) Other accrued expenses include several types of expenses such as accrued bonus, external outside services and production costs.

Other Noncurrent Liabilities: <i>In millions</i>	2021	2020
Deferred Revenue	\$ 8	\$ 7
Workers Compensation Reserve	8	9
Unfavorable Supply Agreement	8	27
Multi-employer Plans	19	20
Deferred Compensation	21	16
Operating Lease Liabilities, noncurrent portion	193	157
Other	25	56
Total	\$ 282	\$ 292

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 3. SUPPLEMENTAL CASH FLOW INFORMATION

Cash Flow (Used In) Provided by Operations Due to Changes in Operating Assets and Liabilities, net of acquisitions:

<i>In millions</i>	2021	2020	2019
Receivables, Net	\$ (106)	\$ (216)	\$ (108)
Inventories, Net	(80)	35	(73)
Other Current Assets	(12)	(5)	(9)
Other Assets	(22)	(22)	(8)
Accounts Payable	77	71	(9)
Compensation and Employee Benefits	(15)	40	13
Income Taxes	(6)	7	(4)
Interest Payable	4	6	8
Other Accrued Liabilities	3	31	5
Other Noncurrent Liabilities	(72)	34	11
Total	\$ (229)	\$ (19)	\$ (174)

Cash paid for interest and cash paid, net of refunds, for income taxes was as follows:

<i>In millions</i>	2021	2020	2019
Interest	\$ 116	\$ 120	\$ 127
Income Taxes	\$ 25	\$ 27	\$ 26

NOTE 4. BUSINESS COMBINATIONS

The Company accounts for acquisitions as business combinations using the acquisition method of accounting in accordance with ASC 805, Business Combinations (“ASC 805”).

Americraft

On July 1, 2021, the Company acquired substantially all of the assets of Americraft. The Company paid approximately \$292 million, using existing cash and borrowings under its revolving credit facility. The acquisition included seven converting plants across the United States.

The purchase price for Americraft has been allocated to assets acquired and liabilities assumed based on the fair values as of the acquisition date and is subject to adjustments in subsequent periods as management finalizes its purchase price allocation, including the third-party valuations. Tangible assets and liabilities were valued as of the acquisition date using the indirect and direct methods of the cost approach and intangible assets were valued using a discounted cash flow analysis, which represents a Level 3 measurement. Management believes that the purchase price attributable to goodwill represents the benefits expected as the acquisition was made to continue to expand its product offering, to integrate paperboard from the Company’s mills and to further optimize the Company’s supply chain footprint. The assigned goodwill, which is deductible for tax purposes, is reported within the Americas Paperboard Packaging reportable segment.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The preliminary purchase price allocation, including immaterial measurement period adjustments, is as follows as of December 31, 2021:

<i>In millions</i>	Amounts Recognized as of Acquisition Date (as adjusted)	
Purchase Price	\$	292
Receivables, Net		22
Inventories		37
Property, Plant and Equipment		122
Intangible Assets ^(a)		54
Other Assets		1
Total Assets Acquired		236
Current Liabilities		12
Total Liabilities Assumed		12
Net Assets Acquired		224
Goodwill		68
Total Estimated Fair Value of Net Assets Acquired	\$	292

^(a) Intangible Assets primarily consists of Customer Relationships with a weighted average life of approximately 15 years.

The Company included the results of operations of this acquisition in its Consolidated Statements of Income from the closing date of the acquisition. During 2021, Net Sales and Income from Operations for the Americraft acquisition were \$108 million and \$4 million, respectively.

AR Packaging

On November 1, 2021, the Company completed the acquisition of AR Packaging Group AB, Europe's second largest producer of fiber-based consumer packaging, by acquiring all the AR Packaging Group AB shares that were issued and outstanding as of the date of acquisition. The acquisition included 30 converting plants in 13 countries and enhances the Company's global scale, innovation capabilities, and value proposition for customers throughout Europe and bordering regions.

The total cash consideration for the AR Acquisition was \$1,412 million net of cash acquired of \$75 million, paid in Euros through the use of deal contingent, foreign exchange forward contracts, purchased through the use of available borrowing capacity on the Company's Senior Secured Revolving Credit Facilities and the \$400 million Incremental Facility Amendment to the Fourth Amended and Restated Credit Agreement. For more information, see "Note 5 - Debt."

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The purchase price was allocated to the assets acquired and liabilities assumed based on the estimated fair values as of the date of acquisition. The excess of the purchase price over the fair value of the net assets acquired was allocated to goodwill, none of which is expected to be deductible for tax purposes, and will be reported within the Europe reportable segment. The allocation of purchase price shown below remains preliminary and is subject to further adjustment, pending additional refinement and final completion of valuations, including but not limited to valuations of property and equipment, customer relationships and other intangible assets, and deferred tax liabilities. Goodwill is primarily attributed to synergies from future expected economic benefits, including enhanced revenue growth from expanded capabilities and geographic presence as well as substantial cost savings from duplicative overhead, streamlined operations and enhanced operational efficiency.

<i>In millions</i>	Amounts Recognized as of Acquisition Date ^(a)	
Total Purchase Consideration	\$	1,487
Cash Acquired		75
Receivables, Net		212
Inventories		166
Other Current Assets		12
Property, Plant and Equipment ^(b)		529
Intangible Assets ^(c)		447
Other Assets		76
Total Assets Acquired		1,517
Accounts Payable		109
Compensation and Employee Benefits		12
Other Accrued Liabilities		101
Short-Term Debt and Current Portion of Long-Term Debt		9
Long-Term Debt		17
Deferred Income Tax Liabilities		164
Accrued Pension and Postretirement Benefits		50
Other Noncurrent Liabilities		41
Noncontrolling Interests		2
Total Liabilities Assumed		505
Net Assets Acquired		1,012
Goodwill		475
Total Estimated Fair Value of Net Assets Acquired	\$	1,487

^(a) The amounts were translated from Euro to USD using the rate at the acquisition date of 1.1539.

^(b) Property, Plant and Equipment primarily consists of Machinery and Equipment of \$371 million with a weighted average life of approximately 12 years.

^(c) Intangible Assets primarily consists of Customer Relationships of \$439 million with a weighted average life of approximately 15 years.

The above fair values of assets acquired and liabilities assumed are preliminary and are based on the information that was available as of the reporting date. The fair values of the tangible assets acquired and liabilities assumed were preliminarily determined using the income and cost approaches. In many cases, the determination of the fair values required estimates about discount rates, future expected cash flows and other future events that are judgmental and subject to change. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement of the fair value hierarchy as defined in ASC 820, Fair Value Measurements ("ASC 820"). Intangible assets consisting of customer relationships, technology, and trade names were valued using the discounted cash flow analysis. The significant assumptions used to estimate the value of the customer relationships intangible assets included the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected EBITDA margins, tax rate, depreciation, and contributory asset charge.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company believes that the information provides a reasonable basis for estimating the fair values of the acquired assets and assumed liabilities, but the potential for measurement period adjustments exists based on the Company's continuing review of matters related to the acquisition. The Company expects to complete the purchase price allocation as soon as practicable, but no later than one year from the acquisition date.

Since the acquisition date, the results of operations for AR Packaging of \$176 million of revenue and \$8 million of operating income have been included within the consolidated statements of income for the twelve months ended December 31, 2021.

The following unaudited pro forma consolidated financial information for the twelve months ended December 31, 2021 combines the results of the Company for the year ended December 31, 2021 and the unaudited results of AR Packaging for the corresponding period through the Acquisition Date, November 1, 2021.

The following unaudited pro forma consolidated financial information for the twelve months ended December 31, 2020 combines the results of the Company for fiscal 2020 and the unaudited results of AR Packaging for the corresponding period. The unaudited pro forma consolidated financial information assumes that the Acquisition, which closed on November 1, 2021, was completed on January 1, 2020 (the first day of fiscal 2020).

The pro forma consolidated financial information has been calculated after applying the Company's accounting policies and includes adjustments for amortization expense of acquired intangible assets, fair value adjustments for acquired inventory, property, plant and equipment and long-term debt. For fiscal 2020, non-recurring pro forma adjustments directly attributable to the Acquisition included pre-tax amounts of \$16 million related to the acquisition accounting effect of inventories acquired and \$74 million of transaction costs. The \$74 million of transaction costs include the \$48 million loss on the forward contracts that the Company used to partially fund the acquisition of AR Packaging. These costs will not effect the Company's income statement beyond 12 months after the acquisition date.

These pro forma results have been prepared for comparative purposes only and do not purport to be indicative of the operating results of the Company that would have been achieved had the Acquisition actually taken place on January 1, 2020. In addition, these results are not intended to be a projection of future results and do not reflect events that may occur after the Acquisition, including but not limited to revenue enhancements, cost savings or operating synergies that the combined Company may achieve as a result of the Acquisition.

<i>In millions</i>	Pro Forma Twelve Months Ended (unaudited)			
	December 31, 2021		December 31, 2020	
Revenue	\$	8,096	\$	7,562
Net Income (Loss)	\$	293	\$	94

2020

On January 31, 2020, the Company acquired a folding carton facility from Quad, a commercial printing company. The converting facility is located in Omaha, Nebraska, close to many of the Company's existing food and beverage customers. The Company paid approximately \$41 million using existing cash and borrowings under its revolving credit facility. The purchase price was allocated to assets acquired and liabilities assumed based on the estimated fair values as of the acquisition date. The Company recorded \$5 million related to identifiable intangible assets (customer relationships with useful lives of fifteen years), \$43 million related to net tangible assets (primarily working capital, land/buildings and equipment) and a bargain purchase gain of \$7 million as the net fair value of assets acquired and liabilities assumed was greater than the purchase price. During 2020, Net Sales and Loss from Operations for the Quad acquisition were \$79 million and \$1.0 million, respectively. During the first quarter of 2021, the acquisition accounting for Quad was finalized.

On April 1, 2020, the Company acquired the Consumer Packaging Group business from Greif, Inc., a leader in industrial packaging products and services. The acquisition included seven converting plants across the United States and will allow the Company to increase its mill-to-converting plant integration over time. The Company paid \$0 million using existing cash and borrowings under its revolving credit facility. The purchase price was allocated to assets acquired and liabilities assumed based on the estimated fair values as of the acquisition date. The Company recorded \$13 million related to identifiable intangible assets (customer relationships with useful lives of fifteen years) and \$67 million related to net tangible assets (primarily working capital, land/buildings and equipment). During 2020, Net Sales and Loss from Operations for the Greif acquisition were \$165 million and \$14 million, respectively. During the second quarter of 2021, the acquisition accounting for the Greif was finalized.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

2019

On August 1, 2019, the Company completed the acquisition of Artistic, a diversified producer of folding cartons and CRB. The acquisition included two converting plants located in Auburn, Indiana and Elgin, Illinois and one CRB paperboard mill located in White Pigeon, Michigan. The Company paid \$53 million using existing cash and borrowings under its revolving credit facility. Management believes that the purchase price attributable to goodwill represents the benefits expected as the acquisition was made to continue to integrate paperboard from the Company's mills, to expand its product offering and to further optimize the Company's supply chain footprint. During 2019, Net Sales and Income from Operations from the Artistic acquisition were \$31 million and \$2 million, respectively.

NOTE 5. DEBT

Short-Term Debt is comprised of the following:

<i>In millions</i>	2021	2020
Short Term Borrowings	\$ 9	\$ 3
Current Portion of Finance Lease Obligations	7	5
Current Portion of Long-Term Debt	263	489
Total	\$ 279	\$ 497

Short-term borrowings are principally at the Company's international subsidiaries. The weighted average interest rate on short-term borrowings as of December 31, 2021 and 2020 was 6.5% and 4.9%, respectively.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Long-Term Debt is comprised of the following:

<i>In millions</i>	2021	2020
Senior Notes with interest payable semi-annually at 4.75% ^(a)	\$ —	\$ 425
Senior Notes with interest payable semi-annually at 4.875%, effective rate of 4.89%, payable in 2022 ^(a)	250	250
Senior Notes with interest payable semi-annually at 0.821%, effective rate of 0.83%, payable in 2024 ^(b)	400	—
Senior Notes with interest payable semi-annually at 4.125%, effective rate of 4.15%, payable in 2024 ^(a)	300	300
Senior Notes with interest payable semi-annually at 1.512%, effective rate of 1.52%, payable in 2026 ^(b)	400	—
Senior Notes with interest payable semi-annually at 4.75%, effective rate of 4.80%, payable in 2027 ^(b)	300	300
Senior Notes with interest payable semi-annually at 3.50%, effective rate of 3.54%, payable in 2028 ^(b)	450	450
Senior Notes with interest payable semi-annually at 3.50%, effective rate of 3.54%, payable in 2029 ^(b)	350	350
Senior Notes (€290 million) with interest payable semi-annually at 2.625%, effective rate of 2.66%, payable in 2029 ^(b)	330	—
Senior Notes with interest payable semi-annually at 3.75%, effective rate of 3.80%, payable in 2030 ^(b)	400	—
Green Bond, net of unamortized premium with interest payable at 4.00%, effective rate of 1.72%, payable in 2026 ^(b)	110	—
Senior Secured Term Loan A-2 Facility with interest payable quarterly at 2.67%, effective rate of 2.68% payable in 2028 ^(b)	425	—
Senior Secured Term Loan A-3 Facility with interest payable monthly payable at floating rates ̄.10% at December 31, 2021), effective rate of 2.12%, payable in 2028 ^(b)	250	—
Senior Secured Term Loan Facilities with interest payable at various dates at floating rates ̄.86% at December 31, 2021) payable through 2026 ^(b)	543	1,360
Senior Secured Term Loan Facility (€210 million) with interest payable at various dates at floating rates ̄.63% at December 31, 2021) payable through 2026 ^(b)	239	—
Senior Secured Revolving Credit Facilities with interest payable at floating rates ̄.93% at December 31, 2021) payable in 2026 ^{(b)(c)}	920	84
Finance Leases and Financing Obligations	146	139
Other	9	5
Total Long-Term Debt	5,822	3,663
Less: Current Portion	270	494
Total Long-Term Debt Excluding Current Portion	5,552	3,169
Less: Unamortized Deferred Debt Issuance Costs	37	22
Total	\$ 5,515	\$ 3,147

^(a) Guaranteed by GPHC and certain domestic subsidiaries

^(b) Guaranteed by GPIL and certain domestic subsidiaries

^(c) The effective interest rates for the Company's Senior Secured Revolving Credit Facilities were 1.63% and 2.06% as of December 31, 2021 and 2020, respectively.

2021

On January 14, 2021, the Company drew the \$425 million Incremental Term A-2 Facility (as hereinafter defined) and used the proceeds, together with cash on hand, to redeem its 4.75% Senior Notes due in 2021.

On March 8, 2021, GPIL completed a private offering of \$400 million aggregate principal amount of its 0.821% Senior Secured Notes due 2024 and \$400 million aggregate principal amount of its 1.512% Senior Secured Notes due 2026. The net proceeds were used by the Company to repay a portion of the outstanding borrowings under GPIL's term loan credit facilities, which is under its senior secured credit facility.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

On April 1, 2021, GPIL entered into a Fourth Amended and Restated Credit Agreement (the "Fourth Amended and Restated Credit Agreement") to extend the maturity date of certain of its senior secured term loan facilities and senior secured revolving credit facilities and to amend certain other terms of the agreement, including revised debt covenants and collateral requirements. Under the terms of the agreement, \$975 million of the Company's senior secured term loan facilities remains outstanding. The Company added approximately \$400 million to its senior secured revolving credit facilities. \$550 million of the senior secured term loan facilities and all of the senior secured revolving credit facility loans continue to bear interest at a floating rate per annum ranging from LIBOR plus 1.25% to LIBOR plus 2.00%, determined using a pricing grid based upon the Company's consolidated total leverage ratio from time to time, and the maturity for these loans were extended from January 1, 2023 to April 1, 2026. \$425 million of the senior secured term loan facilities, which is a Farm Credit System incremental term loan (the "Incremental Term A-2 Facility Amendment") continue to bear interest at a fixed rate per annum equal to 2.67% and matures on their originally scheduled maturity date of January 14, 2028. As long as the Incremental Term A-2 Facility Amendment is outstanding, GPIL will be eligible to receive an annual patronage credit from the participating banks, which will be paid in cash and stock in the lead member bank. Patronage payable each year is variable and based on the individual financial performance of each of the member banks then participating in the loan.

On July 22, 2021, GPIL entered into an Incremental Facility Amendment to the Fourth Amended and Restated Credit Agreement for a second Farm Credit System incremental term loan (the "Incremental Term A-3 Facility"). The Incremental Term A-3 Facility is a senior secured term loan in the aggregate principal amount of \$ 250 million maturing on July 22, 2028. The Incremental Term A-3 Facility bears interest at a floating rate ranging from LIBOR plus 1.50% to LIBOR plus 2.25%, determined using a pricing grid based upon GPIL's consolidated leverage ratio. As long as the Incremental Term A-3 Facility is outstanding, GPIL will be eligible to receive an annual patronage credit from the participating banks, which will be paid in cash and stock in the lead member bank. Patronage payable each year is variable and based on the individual financial performance of each of the member banks then participating in the loan. The Incremental Term A-3 Facility is governed by the same covenants as are set forth in the Fourth Amended and Restated Credit Agreement and is secured by a first priority lien and security interest in certain assets of GPIL.

On July 23, 2021, GPIL entered into Amendment No. 1 to the Fourth Amended and Restated Credit Agreement and the Fourth Amended and Restated Guarantee and Collateral Agreement and Incremental Facility Amendment (the "First Amendment"). The First Amendment provided for a delayed draw term loan facility in an aggregate amount of €210 million and a €25 million increase to the existing Euro-denominated revolving credit facility. The new term loan facility was drawn on October 29, 2021, and bears interest at a floating rate ranging from LIBOR plus 1.125% to LIBOR plus 1.75%, determined using a pricing grid based upon GPIL's consolidated total leverage ratio from time to time. The new term loan facility is governed by the same covenants as set forth in the Fourth Amended and Restated Credit Agreement and is secured by a first priority lien and security interest in certain assets of GPIL.

On September 29, 2021, GPIL completed a \$100 million tax-exempt green bond transaction through the Michigan Strategic Fund's Private Activity Bond Program (the "Green Bonds"). The Green Bonds are special limited obligations of the Michigan Strategic Fund, as issuer, payable from and secured by a pledge of payments to be made by GPIL under a loan agreement between the Michigan Strategic Fund and GPIL. The Green Bonds mature in 2061 and include a mandatory purchase on October 1, 2026. The Green Bonds were issued at a price of 110.99% and bear interest at an annual rate of 4.0%. The equivalent yield is 1.70%. The net proceeds of \$109.5 million were used to fund a portion of its spend on the CRB platform optimization project that includes the construction of a new CRB machine at its Kalamazoo, Michigan mill. The bonds have been designated as Green Bonds primarily because the proceeds were used to finance a solid waste disposal/recycling facility resulting in diversion of waste from landfills. In addition to the solid waste recycling aspect, the project improves the environmental footprint of its CRB mill system through expected reductions in water usage, energy consumption and greenhouse gas emissions.

On October 6, 2021, GPIL entered into a \$400 million Incremental Facility Amendment to the Fourth Amended and Restated Credit Agreement (the "Incremental Term A-4 Facility"). The Incremental Term A-4 Facility has a delayed draw feature, and the Company funded the new term loan on October 29, 2021. The Incremental Term A-4 Facility was collateralized by the same assets as GPIL's Senior Secured Facilities on a pari passu basis. The Incremental Term A-4 Facility bore interest at a floating rate per annum equal to the Base Rate, the Euro currency Rate plus 0.875%, or the Daily Floating LIBOR Rate plus 0.875%, as selected by the Company. The loan was repaid on November 19, 2021 with the proceeds from the 3.75% senior unsecured notes due 2030.

On November 19, 2021, GPIL completed a private offering of \$400 million aggregate principal amount of 3.750% senior unsecured notes due 2030 (the "Dollar Notes") and €290 million aggregate principal amount of 2.625% senior unsecured notes due 2029 (the "Euro Notes"). The net proceeds of the Dollar Notes were used to repay in full the term loan borrowed under the Incremental Term A-4 Loan, which was under its senior secured credit facility. The net proceeds of the Euro Notes were used to repay revolver borrowings outstanding under its senior secured credit facility.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

2020

On March 6, 2020, GPIL completed a private offering of \$450 million aggregate principal amount of its senior unsecured notes due 2028. The Senior Notes bear interest at an annual rate of 3.50%. The net proceeds were used by the Company to repay a portion of the outstanding borrowings under GPIL's revolving credit facility, which is under its senior secured credit facility.

On August 28, 2020, GPIL completed a private offering of \$350 million aggregate principal amount of its senior unsecured notes due 2029. The Senior Notes bear interest at an annual rate of 3.50%. The net proceeds were used by the Company to repay a portion of the outstanding borrowings under GPIL's revolving credit facility, which is under its senior secured credit facility.

The following describes the Company's senior secured term loans and revolving credit facilities within the Fourth Amended and Restated Credit Agreement:

Document ^(a)	Provision	Expiration
Fourth Amended and Restated Credit Agreement	<ul style="list-style-type: none"> • Increased the domestic revolving credit facility by \$400 million to \$1,850 million. • Increased the European revolving credit facility by €7 million to €145 million. • Decreased the Japanese revolving credit facility by ¥850 million to ¥1,650 million, and • Reduced the term loan by approximately \$5 million to \$550 million. LIBOR plus variable spread (between 125 basis points and 200 basis points) depending on consolidated total leverage ratio. 	April 2026
Amendment 1	Increased the European revolving credit facility by €25 million to €170 million. Added Incremental EUR Term Loan Facility of €210 million.	April 2026
Incremental Term A-2 Facility Amendment	Incremental \$425 million term loan facility under the Fourth Amended and Restated Credit Agreement with a delayed draw feature, which was exercised in January 2021.	January 2028
Incremental Term A-3 Facility Amendment	Incremental \$250 million term loan facility under the Fourth Amended and Restated Credit Agreement, which was exercised in July 2021.	July 2028
Second Incremental Term A-4 Facility Amendment	Incremental \$400 million term loan facility under the Fourth Amended and Restated Credit Agreement, which was funded in October 2021, and settled in November 2021.	November 2021

^(a) The Company's obligations under the Fourth Amended and Restated Credit Agreement (as amended by the Incremental Term A-3 Facility Amendment, the First Amendment, and the Incremental Term A-4 Facility Amendment (collectively, the "Current Credit Agreement")) are secured by substantially all of the Company's domestic assets.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

At December 31, 2021, the Company and its U.S. and international subsidiaries had the following commitments, amounts outstanding and amounts available under revolving credit facilities:

<i>In millions</i>	Total Commitments	Total Outstanding	Total Available
Senior Secured Domestic Revolving Credit Facility ^(a)	\$ 1,850	\$ 850	\$ 978
Senior Secured International Revolving Credit Facilities	208	70	138
Other International Facilities	70	18	52
Total	\$ 2,128	\$ 938	\$ 1,168

^(a)In accordance with its debt agreements, the Company's availability under its revolving credit facilities has been reduced by the amount of standby letters of credit issued of \$2 million as of December 31, 2021. These letters of credit are primarily used as security against its self-insurance obligations and workers' compensation obligations. These letters of credit expire at various dates through early 2023 unless extended.

Long-Term Debt maturities (excluding finance leases and finance obligations) are as follows:

<i>In millions</i>	
2022	\$ 263
2023	33
2024	740
2025	39
2026	2,095
After 2026	2,506
Total	5,676

Covenant Agreements

The Current Credit Agreement and the indentures governing the 4.875% Senior Notes due 2022, 0.821% Senior Notes due 2024, 4.125% Senior Notes due 2024, 1.512% Senior Notes due 2026, 4.75% Senior Notes due 2027, 3.50% Senior Notes due 2028, 3.50% Senior Notes due 2029, 2.625% Senior Notes due 2029 and 3.75% Senior Notes due 2030 (the "Indentures"), limit the Company's ability to incur additional indebtedness. Additional covenants contained in the Current Credit Agreement and the Indentures may, among other things, restrict the ability of the Company to dispose of assets, incur guarantee obligations, prepay other indebtedness, repurchase stock, pay dividends and make other restricted payments, create liens, make equity or debt investments, make acquisitions, modify terms of the Indentures, engage in mergers or consolidations, change the business conducted by the Company and its subsidiaries, and engage in certain transactions with affiliates. Such restrictions could limit the Company's ability to respond to changing market conditions, fund its capital spending program, provide for unexpected capital investments or take advantage of business opportunities.

As of December 31, 2021, the Company was in compliance with the covenants in the Current Credit Agreement and the Indentures.

NOTE 6. LEASES

The Company determines if a contract is or contains a lease at inception. The Company has operating and finance leases for warehouses, corporate and regional offices, and machinery and equipment. The Company enters into lease contracts ranging from one to 25 years with the majority of leases having terms of three to seven years, many of which include options to extend in various increments. Variable lease costs consist primarily of variable warehousing costs, common area maintenance, taxes, and insurance. The Company's leases do not have any significant residual value guarantees or restrictive covenants.

As the implicit rate is not readily determinable for most of the Company's leases agreements, the Company uses an estimated incremental borrowing rate to determine the initial present value of lease payments. These discount rates for leases are calculated using the Company's credit spread adjusted for current market factors, including fixed rate swaps, LIBOR, and foreign currency rates.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The components of lease costs are as follows:

<i>In millions</i>	Year Ended December 31,	
	2021	2020
Finance lease costs:		
Amortization of right-of-use asset	\$ 8	\$ 8
Interest on lease liabilities	8	8
Operating lease costs	75	72
Short-term lease costs	23	13
Variable lease costs	10	10
Total lease costs, net	124	111

Supplemental cash flow information related to leases was as follows:

<i>In millions</i>	Year Ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 76	\$ 72
Operating cash flows from finance leases	8	8
Financing cash flows from finance leases	6	5
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	118	71
Finance leases	11	—

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Supplemental balance sheet information related to leases was as follows:

<i>In millions, except lease term and discount rate</i>	Balance Sheet Classification	December 31,	
		2021	2020
Operating Leases:			
Operating lease right-of-use asset	Other Assets	\$ 258	\$ 208
Current operating lease liabilities	Other Accrued Liabilities	\$ 73	\$ 61
Noncurrent operating lease liabilities	Other Noncurrent Liabilities	193	157
Total operating lease liabilities		\$ 266	\$ 218
Finance Leases and Financing Obligations:			
Property, Plant and Equipment		\$ 153	\$ 142
Accumulated depreciation		(28)	(20)
Property, Plant and Equipment, net		\$ 125	\$ 122
Current finance lease liabilities	Short-Term Debt and Current Portion of Long-Term Debt	\$ 7	\$ 5
Noncurrent finance lease liabilities and financing obligations	Long-Term Debt	139	134
Total finance lease liabilities and financing obligations		\$ 146	\$ 139
Weighted Average Remaining Lease Term (Years)			
Operating leases		6	5
Finance leases		15	16
Weighted Average Discount Rate			
Operating leases		2.74 %	3.24 %
Finance leases		5.91 %	5.60 %

Maturities of lease liabilities are as follows:

<i>In millions</i>	Operating Leases		Finance Leases	
Year ending December 31,				
2022	\$	78	\$	17
2023		62		15
2024		43		14
2025		31		14
2026		20		13
Thereafter		54		132
Total lease payments	\$	288	\$	205
Less imputed interest		(22)		(69)
Total	\$	266	\$	136

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 7. STOCK INCENTIVE PLANS

The Company has one active equity compensation plan from which new grants may be made, the Graphic Packaging Holding Company 2014 Omnibus Stock and Incentive Compensation Plan (the “2014 Plan”). The 2014 Plan allows for granting shares of stock, options, stock appreciation rights, restricted stock, restricted stock units (“RSUs”), restricted stock awards (“RSAs”), and other types of stock-based and cash awards. Awards under the 2014 Plan vest and expire in accordance with terms established at the time of grant. Shares issued pursuant to awards under the 2014 Plan are from GPHC’s authorized but unissued shares. Compensation costs are recognized on a straight-line basis over the requisite service period of the award and are adjusted for actual performance for performance-based awards. As of December 31, 2021, there were 11.6 million shares remaining available to be granted under the 2014 Plan.

Stock Awards, Restricted Stock and Restricted Stock Units

Under the 2014 Plan, all RSUs granted to employees generally vest and become payable in three years from date of grant. RSUs granted to employees generally contain some combination of service and performance objectives based on various financial targets and relative total shareholder return that must be met for the RSUs to vest. RSUs granted as deferred compensation for non-employee directors are fully vested but not payable until the distribution date elected by the director. RSAs issued to non-employee directors as part of their compensation for service on the Board are unrestricted on the grant date.

Data concerning RSUs and RSAs granted during the years ended December 31 is as follows:

	2021	2020	2019
RSUs — Employees	1,680,997	1,655,854	2,187,603
Weighted-average grant date fair value	\$ 16.14	\$ 15.40	\$ 12.37
Stock Awards — Board of Directors	55,055	71,160	74,760
Weighted-average grant date fair value	\$ 17.80	\$ 13.49	\$ 12.84

A summary of the changes in the number of unvested RSUs from December 31, 2018 to December 31, 2021 is presented below:

	RSUs	Weighted Average Grant Date Fair Value
Outstanding — December 31, 2018	4,460,034	\$ 13.27
Granted ^(a)	2,187,603	12.37
Released	(900,516)	12.00
Forfeited	(187,729)	13.66
Performance adjustment ^(b)	(499,702)	11.57
Outstanding — December 31, 2019	5,059,690	\$ 13.27
Granted ^(a)	1,655,854	15.40
Released	(1,415,365)	12.91
Forfeited	(158,473)	14.25
Outstanding — December 31, 2020	5,141,706	\$ 14.02
Granted ^(a)	1,680,997	16.14
Released	(2,121,203)	14.88
Forfeited	(359,100)	14.39
Performance adjustment ^(b)	587,461	15.09
Outstanding — December 31, 2021	4,929,861	\$ 14.47

^(a) Grant activity for all performance-based RSUs is disclosed at target.

^(b) Reflects the number of RSUs above and below target levels based on actual performance measured at the end of the performance period.

The initial value of the service-based RSUs is based on the closing market value of GPHC’s common stock on the date of grant. The 2021 performance-based RSU grants were valued using a Monte Carlo simulation as the total shareholder return contains a market condition. RSUs are recorded in Shareholders’ Equity. The unrecognized expense at December 31, 2021 is approximately \$31 million and is expected to be recognized over a weighted average period of 2 years.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The value of stock awards granted to the Company's directors are based on the market value of GPHC's common stock on the date of grant. These awards are unrestricted on the date of grant.

During 2021, 2020, and 2019, \$27 million, \$34 million and \$22 million, respectively, were charged to compensation expense for stock incentive plans and is primarily included in Selling, General and Administrative expenses in the Consolidated Statements of Operations.

During 2021, 2020, and 2019, RSUs with an aggregate fair value of \$5 million, \$23 million and \$11 million, respectively, vested and were paid out. The RSUs vested and paid out in 2021 were granted primarily during 2018.

NOTE 8. PENSIONS AND OTHER POSTRETIREMENT BENEFITS

DEFINED BENEFIT PLANS

The Company maintains both defined benefit pension plans and postretirement health care plans that provide medical and life insurance coverage to eligible salaried and hourly retired employees in North America and their dependents. The Company maintains international defined benefit pension plans which are either noncontributory or contributory and are funded in accordance with applicable local laws. Pension or termination benefits are based primarily on years of service and the employees' compensation.

Currently, the North American plans are closed to newly-hired employees except as noted below. Effective July 1, 2011, the North American plans were frozen for most salaried and non-union hourly employees and replaced with a defined contribution plan.

During 2018, the Company began the process of terminating its largest U.S. pension plan (the "U.S. Plan"). This included freezing the plan as of December 31, 2018 and spinning off the active participants to the plan established as part of the NACP Combination (the "NACP Plan"). The NACP Plan is open for union and non-union hourly employees of locations that were part of the NACP Combination. During the third quarter of 2019, the Company offered a lump-sum benefit option to certain participants in the U.S. Plan. Lump sum payments of \$150 million were paid in the fourth quarter of 2019 and the Company recognized a non-cash settlement charge of \$39 million associated with the payouts. In the first quarter of 2020, the Company, using the assets held within the pension trust, purchased a group annuity contract that transferred the remaining pension obligation under the U.S. Plan of approximately \$713 million to an insurance company. The Company incurred an additional non-cash settlement charge of \$154 million related to this transfer. These non-cash settlement charges relate to Net Actuarial Loss previously recognized in Accumulated Other Comprehensive Loss.

As disclosed in "Note 1 - Nature of Business and Summary of Significant Accounting Policies" during the fourth quarter of 2021, the Company acquired substantially all the shares of AR Packaging. The business combination led to the Company acquiring approximately \$53 million in pension benefit obligations and \$1 million in pension plan assets.

Pension and Postretirement Expense

The pension and postretirement expenses related to the Company's plans consisted of the following:

<i>In millions</i>	Pension Benefits			Postretirement Benefits		
	Year Ended December 31,					
	2021	2020	2019	2021	2020	2019
Components of Net Periodic Cost:						
Service Cost	\$ 15	\$ 15	\$ 14	\$ —	\$ 1	\$ —
Interest Cost	10	14	46	1	1	1
Expected Return on Plan Assets	(19)	(21)	(55)	—	—	—
Amortization of Actuarial Loss (Gain)	5	5	10	(2)	(2)	(2)
Net Curtailment/Settlement Loss	—	154	39	—	—	—
Net Periodic Cost (Benefit)	\$ 11	\$ 167	\$ 54	\$ (1)	\$ —	\$ (1)

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Certain assumptions used in determining the pension and postretirement expenses were as follows:

	Pension Benefits			Postretirement Benefits		
	Year Ended December 31,					
	2021	2020	2019	2021	2020	2019
Weighted Average Assumptions:						
Discount Rate	2.11 %	2.69 %	4.14 %	2.52 %	3.22 %	4.29 %
Rate of Increase in Future Compensation Levels	3.62 %	2.36 %	2.37 %	—	—	—
Expected Long-Term Rate of Return on Plan Assets	3.59 %	4.12 %	4.74 %	—	—	—
Initial Health Care Cost Trend Rate	—	—	—	6.40 %	6.65 %	9.00 %
Ultimate Health Care Cost Trend Rate	—	—	—	4.50 %	4.50 %	4.50 %
Ultimate Year	—	—	—	2028	2028	2028

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Funded Status

The following table sets forth the funded status of the Company's pension and postretirement plans as of December 31:

<i>In millions</i>	Pension Benefits		Postretirement Benefits	
	2021	2020	2021	2020
Change in Benefit Obligation:				
Benefit Obligation at Beginning of Year	\$ 593	\$ 1,256	\$ 36	\$ 36
Service Cost	15	15	—	1
Interest Cost	10	14	1	1
Net Actuarial (Gain) Loss	(21)	62	(3)	—
Foreign Currency Exchange	(4)	9	—	—
Settlements	—	(743)	—	—
Benefits Paid	(19)	(20)	(1)	(2)
Acquisition	53	—	—	—
Benefit Obligation at End of Year	\$ 627	\$ 593	\$ 33	\$ 36
Change in Plan Assets:				
Fair Value of Plan Assets at Beginning of Year	\$ 516	\$ 1,172	\$ —	\$ —
Actual Return on Plan Assets	28	58	—	—
Employer Contributions	33	19	1	1
Foreign Currency Exchange	(2)	8	—	—
Benefits Paid	(19)	(20)	(1)	(1)
Acquisition	1	—	—	—
Settlements	—	(721)	—	—
Fair Value of Plan Assets at End of Year	\$ 557	\$ 516	\$ —	\$ —
Plan Assets Less than Projected Benefit Obligation	\$ (70)	\$ (77)	\$ (33)	\$ (36)
Amounts Recognized in the Consolidated Balance Sheets Consist of:				
Pension Assets	\$ 43	\$ 21	\$ —	\$ —
Accrued Pension and Postretirement Benefits Liability — Current	\$ (4)	\$ (2)	\$ (3)	\$ (2)
Accrued Pension and Postretirement Benefits Liability — Noncurrent	\$ (109)	\$ (96)	\$ (30)	\$ (34)
Accumulated Other Comprehensive Income:				
Net Actuarial Loss (Gain)	\$ 71	\$ 106	\$ (1)	\$ (1)
Prior Service Cost (Credit)	\$ 4	\$ 4	\$ (16)	\$ (15)
Weighted Average Calculations:				
Discount Rate	2.46 %	2.11 %	2.92 %	2.52 %
Rates of Increase in Future Compensation Levels	1.80 %	3.62 %	—	—
Initial Health Care Cost Trend Rate	—	—	6.15 %	6.40 %
Ultimate Health Care Cost Trend Rate	—	—	4.50 %	4.50 %
Ultimate Year	—	—	2031	2028

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company determined pension expense using both the fair value of assets and a calculated value that averages gains and losses over a period of years. Investment gains or losses represent the difference between the expected and actual return on assets. As of December 31, 2021, the net actuarial loss was \$71 million. These net losses may increase future pension expense if not offset by (i) actual investment returns that exceed the assumed investment returns, or (ii) other factors, including reduced pension liabilities arising from higher discount rates used to calculate pension obligations, or (iii) other actuarial gains, including whether such accumulated actuarial losses at each measurement date exceed the “corridor” determined under the *Compensation — Retirement Benefits* topic of the FASB Codification. For the largest plan, the actuarial loss is amortized over the average remaining service period of employees expected to receive benefits.

The discount rate used to determine the present value of future pension obligations at December 31, 2021 was based on a yield curve constructed from a portfolio of high-quality corporate debt securities with maturities ranging from 1 year to 30 years. Each year’s expected future benefit payments were discounted to their present value at the spot yield curve rate thereby generating the overall discount rate for the Company’s pension obligations. The weighted average discount rate used to determine the pension obligations was 2.46% and 2.11% in 2021 and 2020, respectively.

The pension net actuarial gain of \$21 million was primarily due to changes in the discount rate of \$20 million. The weighted average discount rate at December 31, 2021 was 2.46% compared to 2.11% at December 31, 2020.

Accumulated Benefit Obligation

The accumulated benefit obligation, (“ABO”), for all defined benefit pension plans was \$621 million and \$588 million at December 31, 2021 and 2020, respectively. The projected benefit obligation (“PBO”) and fair value of plan assets where the PBO exceeded plan assets were \$383 million and \$361 million, respectively. The ABO and fair value of plan assets where the ABO exceeded plan assets were \$378 million and \$357 million, respectively.

Employer Contributions

The Company made contributions of \$33 million and \$19 million to its pension plans during 2021 and 2020, respectively. During 2021, the Company made a \$14 million contribution to its remaining U.S. defined benefit plan by effectively utilizing a portion of the excess balance related to the terminated U.S. defined benefit plan. For 2022, the Company expects to make a contribution of \$6 million by utilizing the excess balance. Excluding this \$6 million contribution, for 2022, the Company expects to make contributions in the range of \$10 million to \$20 million to its pension plan.

The Company also made postretirement health care benefit payments of \$1 million during 2021 and 2020. For 2022, the Company expects to make approximately \$2 million contributions to its postretirement health care plans.

Pension Assets

The Company’s overall investment strategy is to achieve a mix of investments for long-term growth and near-term benefit payments through diversification of asset types, fund strategies and fund managers. Investment risk is measured on an on-going basis through annual liability measurements, periodic asset/liability studies, and quarterly investment portfolio reviews. The plans invest in the following major asset categories: cash, equity securities, fixed income securities, real estate and diversified growth funds. At December 31, 2021 and 2020, pension investments did not include any direct investments in the Company’s stock or the Company’s debt.

The Company implemented a de-risking or liability driven investment strategy for its U.S. and U.K. pension plans. This strategy moved assets from return seeking (equities) to investments that mirror the underlying benefit obligations (fixed income).

The weighted average allocation of plan assets and the target allocation by asset category is as follows:

	Target	2021	2020
Cash	1 %	3 %	1 %
Equity Securities	24	26	24
Fixed Income Securities	48	46	62
Other Investments	27	25	13
Total	100 %	100 %	100 %

The plans’ investment in equity securities primarily includes investments in U.S. and international companies of varying sizes and industries. The strategy of these investments is to 1) exceed the return of an appropriate benchmark for such equity classes and 2) through diversification, reduce volatility while enhancing long term real growth.

The plans’ investment in fixed income securities includes government bonds, investment grade bonds and non-investment grade bonds across a broad and diverse issuer base. The strategy of these investments is to provide income and stability and to diversify the fixed income exposure of the plan assets, thereby reducing volatility.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company's approach to developing the expected long-term rate of return on pension plan assets is based on fair values and combines an analysis of historical investment performance by asset class, the Company's investment guidelines and current and expected economic fundamentals.

The following tables set forth, by category and within the fair value hierarchy, the fair value of the Company's pension assets at December 31, 2021 and 2020:

Fair Value Measurements at December 31, 2021						
<i>In millions</i>	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Net Asset Value at December 31, 2021 ^(b)	
Asset Category:						
Cash	\$ 19	\$ 17	\$ 1	\$ —	\$ 1	
Equity Securities:						
Domestic	140	5	13	—	122	
Foreign	8	8	—	—	—	
Fixed Income Securities	254	19	234	1	—	
Other Investments:						
Real estate	7	—	7	—	—	
Liability Driven Investment	90	31	59	—	—	
Diversified growth fund ^(a)	39	—	7	32	—	
Total	\$ 557	\$ 80	\$ 321	\$ 33	\$ 123	

Fair Value Measurements at December 31, 2020						
<i>In millions</i>	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Net Asset Value at December 31, 2020 ^(b)	
Asset Category:						
Cash	\$ 6	\$ —	\$ 2	\$ —	\$ 4	
Equity Securities:						
Domestic	118	5	12	—	101	
Foreign	7	7	—	—	—	
Fixed Income Securities	319	19	300	—	—	
Other Investments:						
Real estate	23	—	9	14	—	
Diversified growth fund ^(a)	43	—	43	—	—	
Total	\$ 516	\$ 31	\$ 366	\$ 14	\$ 105	

^(a) The fund invests in a combination of traditional investments (equities, bonds, and foreign exchange), seeking to achieve returns through active asset allocation over a three to five-year horizon.

^(b) Investments that are measured at net asset value (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy.

A reconciliation of fair value measurements of plan assets using significant unobservable inputs (Level 3) is as follows:

<i>In millions</i>	2021	2020
Balance at January 1,	\$ 14	\$ 13
Return on Assets, Net	2	—
Purchases	24	—
Transfers (Out) / In, Net	(7)	1
Balance at December 31,	\$ 33	\$ 14

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Estimated Future Benefit Payments

The following represents the Company's estimated future pension and postretirement health care benefit payments through the year 2031:

<i>In millions</i>	Pension Plans	Postretirement Health Care Benefits
2022	\$ 24	\$ 2
2023	26	2
2024	28	2
2025	30	2
2026	32	2
2027— 2031	174	10

Multi-Employer Plans

Certain of the Company's employees participate in multi-employer plans that provide both pension and other postretirement health care benefits to employees under union-employer organization agreements.

Estimated liabilities have been established related to the partial or complete withdrawal from certain multi-employment benefit plans for facilities that have been closed. During the second quarter of 2020, the Company increased its estimated withdrawal liability for these plans by \$12 million. During the fourth quarter of 2020, the Company entered into a settlement agreement with one of its closed multi-employment benefit plans and recorded a \$4 million reduction in its estimated withdrawal liability for this plan. Under the terms of this settlement agreement, the Company paid \$17 million in the first quarter of 2021. At December 31, 2021 and December 31, 2020, the Company has withdrawal liabilities of \$19 million and \$37 million, respectively, related to these plans, which is recorded as Compensation and Employee Benefits and Other Noncurrent Liabilities in the Company's Consolidated Balance Sheets, which represents the Company's best estimate of the expected withdrawal liability.

DEFINED CONTRIBUTION PLANS

The Company provides defined contribution plans for certain eligible employees. The Company's contributions to the plans are based upon employee contributions, a percentage of eligible compensation, and the Company's annual operating results. Contributions to these plans for the years ended December 31, 2021, 2020 and 2019 were \$69 million, \$62 million and \$58 million, respectively.

NOTE 9. INCOME TAXES

The U.S. and international components of Income before Income Taxes and Equity Income of Unconsolidated Entity consisted of the following:

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
U.S.	\$ 237	\$ 181	\$ 305
International	52	63	49
Income before Income Taxes and Equity Income of Unconsolidated Entity	\$ 289	\$ 244	\$ 354

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The provisions for Income Tax (Expense) Benefit on Income before Income Taxes and Equity Income of Unconsolidated Entity consisted of the following:

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
Current Expense:			
U.S.	\$ (2)	\$ (23)	\$ (10)
International	(17)	(20)	(13)
Total Current	\$ (19)	\$ (43)	\$ (23)
Deferred (Expense) Benefit:			
U.S.	(57)	(8)	(48)
International	2	9	(5)
Total Deferred	\$ (55)	\$ 1	\$ (53)
Income Tax Expense	\$ (74)	\$ (42)	\$ (76)

A reconciliation of Income Tax (Expense) Benefit on Income before Income Taxes and Equity Income of Unconsolidated Entity at the federal statutory rate of 21.0% compared with the Company's actual Income Tax (Expense) Benefit is as follows:

<i>In millions</i>	Year Ended December 31,					
	2021	Percent	2020	Percent	2019	Percent
Income Tax Expense at U.S. Statutory Rate	\$ (61)	21.0 %	\$ (51)	21.0 %	\$ (74)	21.0 %
U.S. State and Local Tax Expense	(12)	4.1	(8)	3.2	(12)	3.5
Permanent Items	(9)	3.2	(1)	0.4	(3)	0.8
Provision to Return Adjustments	4	(1.4)	2	(0.9)	—	—
Change in Valuation Allowance	(1)	0.4	7	(2.9)	(5)	1.3
International Tax Rate Differences	(3)	1.0	(3)	1.2	(2)	0.5
Foreign Withholding Tax	(2)	0.7	(1)	0.3	(1)	0.2
Change in Tax Rates	(1)	0.5	—	0.1	(1)	0.3
U.S. Federal & State Tax Credits	13	(4.5)	10	(4.0)	10	(2.7)
Uncertain Tax Positions	(3)	1.0	(2)	1.0	(2)	0.5
Domestic Minority Interest	2	(0.7)	5	(2.2)	14	(3.9)
Deferred Adjustment due to IP Exit	(4)	1.5	—	—	—	—
Unrealized FX	5	(1.7)	—	—	—	—
Other	(2)	0.6	—	(0.2)	—	0.1
Income Tax Expense	\$ (74)	25.7 %	\$ (42)	17.0 %	\$ (76)	21.6 %

As a result of the NACP Combination, federal and state income taxes are not recorded with respect to consolidated domestic earnings attributable to the Company's minority interest partner, resulting in a difference between the effective tax rate and the statutory tax rate. As a result of decreases in the minority partner's interest during 2021 and 2020, the difference between the effective tax rate and the statutory tax also declined.

In addition, during 2021, the Company recognized tax expense of approximately \$4 million related to the remeasurement of deferred tax assets for executive compensation as a result of IP's exchange of its remaining shares in GPIP during the period and approximately \$3 million related to the remeasurement of its net deferred tax liability for its UK subsidiaries due to the statutory tax rate increase enacted during the second quarter.

During 2020, the Company recognized a tax benefit of approximately \$8 million attributable to the release of a valuation allowance recorded against the net deferred tax assets of two of its Canadian subsidiaries as a result of internal restructuring. The Company also recognized a tax benefit related to updates to its 2019 financial statement income tax calculations of approximately \$2 million primarily due to new guidance in final U.S. Treasury Regulations issued during 2020.

During 2019, the Company recognized tax expense of approximately \$5 million associated with the establishment of a valuation allowance against the net deferred tax assets of its Australian subsidiary.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The tax effects of differences that give rise to significant portions of the deferred income tax assets and deferred income tax liabilities as of December 31 were as follows:

<i>In millions</i>	2021	2020
Deferred Income Tax Assets:		
Compensation Based Accruals	\$ 4	\$ 4
Net Operating Loss Carryforwards	192	40
Postretirement Benefits	1	1
Tax Credits	31	19
Other	37	9
Valuation Allowance	(38)	(34)
Total Deferred Income Tax Assets	\$ 227	\$ 39
Deferred Income Tax Liabilities:		
Property, Plant and Equipment	(108)	(21)
Goodwill	(3)	(3)
Other Intangibles	(108)	(11)
Investment in Partnership	(564)	(531)
Net Noncurrent Deferred Income Tax Liabilities	\$ (783)	\$ (566)
Net Deferred Income Tax Liability	\$ (556)	\$ (527)

The Company has total deferred income tax assets, excluding valuation allowance, of \$265 million and \$73 million as of December 31, 2021 and 2020, respectively. The Company has total deferred income tax liabilities of \$783 million and \$566 million as of December 31, 2021 and 2020, respectively.

As a result of International Paper's final exchange in 2021, the Company currently owns 100% of the outstanding interests in GPIIP. GPIIP continues to be treated as a partnership for U.S. federal and state income tax purposes despite International Paper's exit as a minority partner. Accordingly, as a result of the continuation of the partnership, domestic deferred tax assets and liabilities are not tracked based on the inside basis difference of assets and liabilities held within GPIIP. Instead, the Company's outside basis difference in its partnership investment is recorded as a deferred tax liability and disclosed above. The deferred tax liability primarily relates to differences between book and tax basis in property, plant and equipment and intangibles inside the partnership. During 2021 and 2020, IP redeemed or exchanged its entire interest in the partnership. As a result of the redemptions and exchanges, the Company recorded a decrease in its deferred tax liability in 2021 and 2020 of \$175 million and \$16 million, respectively, which was recorded through additional paid-in capital.

According to the Income Taxes topic of the FASB Codification, a valuation allowance is required to be established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized. The FASB Codification provides important factors in determining whether a deferred tax asset will be realized, including whether there has been sufficient pretax income in recent years and whether sufficient income can reasonably be expected in future years in order to utilize the deferred tax asset. The Company has evaluated the need to maintain a valuation allowance for deferred tax assets based on its assessment of whether it is more likely than not that deferred tax assets will be realized through the generation of future taxable income. Appropriate consideration was given to all available evidence, both positive and negative, in assessing the need for a valuation allowance.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company reviewed its deferred income tax assets as of December 31, 2021 and 2020, respectively, and determined that it is more likely than not that a portion will not be realized. A valuation allowance of \$38 million and \$34 million at December 31, 2021 and 2020, respectively, is maintained on the deferred income tax assets for which the Company has determined that realization is not more likely than not. Of the total valuation allowance at December 31, 2021, \$30 million relates to net deferred tax assets in certain foreign jurisdictions, \$1 million relates to U.S. foreign tax credit carryforwards, \$5 million relates to tax credit carryforwards in certain states, and the remaining \$2 million relates to net operating losses in certain U.S. states. The need for a valuation allowance is made on a jurisdiction-by-jurisdiction basis. As of December 31, 2021, the Company concluded that due to cumulative pretax losses and the lack of sufficient future taxable income of the appropriate character, realization is less than more likely than not on the net deferred income tax assets related primarily to the Company's operations in Australia, Brazil, Netherlands, and Norway as well as certain operations in Germany.

The following table represents a summary of the valuation allowances against deferred tax assets as of and for the three years ended December 31, 2021, 2020, and 2019, respectively:

<i>In millions</i>	December 31,		
	2021	2020	2019
Balance Beginning of Period	\$ 34	\$ 41	\$ 36
Adjustments for (Income) and Expenses	1	(7)	5
Additions (Deductions)	3	—	—
Balance at End of Period	\$ 38	\$ 34	\$ 41

The Company utilized its remaining U.S. federal net operating loss carryforwards during 2020. However, as a result of deductions associated with the step up in tax basis of certain assets as a result of International Paper's exit from the partnership, the Company generated a taxable loss of \$574 million during 2021 that can be carried forward for U.S. federal income tax purposes indefinitely. Therefore, based on the net operating loss generated in 2021 as well as future tax benefits associated with planned capital projects and tax credit carryforwards, which are available to offset future U.S. federal income tax, the Company does not expect to be a meaningful U.S. federal cash taxpayer until 2024.

The Company's U.S. state net operating loss carryforwards total \$587 million and expire in various years through 2041.

International net operating loss carryforward amounts total \$191 million, of which substantially all have no expiration date.

Tax Credit carryforwards total \$31 million which expire in various years through 2041.

Uncertain Tax Positions

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

<i>In millions</i>	2021	2020	2019
Balance at January 1,	\$ 20	\$ 21	\$ 16
Additions for Tax Positions of Current Year	1	1	2
Additions for Tax Positions of Prior Years	3	2	3
Reductions for Tax Positions of Prior Years	—	(4)	—
Balance at December 31,	\$ 24	\$ 20	\$ 21

At December 31, 2021, \$24 million of the total gross unrecognized tax benefits, if recognized, would affect the annual effective income tax rate. As of December 31, 2021, none of the total gross unrecognized tax benefits recorded are related to indefinite lived deferred tax assets and did not have an impact on total tax expense.

The Company recognizes potential accrued interest and penalties related to unrecognized tax benefits within its global operations in Income Tax Expense. The Company had an immaterial accrual for the payment of interest and penalties at December 31, 2021.

The Company anticipates that \$1 million of the total unrecognized tax benefits at December 31, 2021 could change within the next 12 months.

The Company files income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions and our income tax filings are regularly examined by federal, state and non-U.S. tax authorities. The Company's 2018 U.S. federal corporate and partnership income tax filings are currently under examination by the Internal Revenue Service. With few exceptions, the Company is no longer subject to U.S. federal, state and local tax examinations for years before 2017.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

As of December 31, 2021, the Company has provided for deferred income taxes attributable to future foreign withholding tax expense related to the Company's equity investment in the joint venture, Rengo Riverwood Packaging, Ltd. In addition, Company provides deferred income taxes for future Canadian withholding tax to the extent of excess cash available for distribution after consideration of working capital needs and other debt settlement of its Canadian subsidiary, Graphic Packaging International Canada, ULC. The Company continues to assert that it is permanently reinvested in the cumulative earnings of its Canadian subsidiary in excess of the amount of cash that is on hand and available for distribution after consideration of working capital needs and other debt settlement. Due to the deemed taxation of all post-1986 earnings and profits required by the Act, the Company has determined that no deferred tax liability should be recorded related to the outside basis difference of its Canadian subsidiary of approximately \$1 million as of December 31, 2021.

The Company has not provided for deferred U.S. income taxes on approximately \$3 million of its undistributed earnings in other international subsidiaries because of the Company's intention to indefinitely reinvest these earnings outside the U.S. The Company's assertion remains unchanged, despite the deemed taxation of all post-1986 earnings and profits required by the Act. The determination of the amount of the unrecognized deferred U.S. income tax liability (primarily withholding tax in certain jurisdictions and some state tax) on the unremitted earnings or any other associated outside basis difference is not practicable because of the complexities associated with the calculation.

The Company has elected to recognize global intangible low-taxed income ("GILTI") as period cost as incurred, therefore there are no deferred taxes recognized for basis differences that are expected to impact the amount of the GILTI inclusion upon reversal.

NOTE 10. FINANCIAL INSTRUMENTS, DERIVATIVES AND HEDGING ACTIVITIES

The Company enters into derivative instruments for risk management purposes only, including derivatives designated as hedging instruments under the *Derivatives and Hedging* topic of the FASB Codification and those not designated as hedging instruments under this guidance. The Company uses interest rate swaps, natural gas swap contracts, and forward exchange contracts. These derivative instruments are designated as cash flow hedges and, to the extent they are effective in offsetting the variability of the hedged cash flows, changes in the derivatives' fair value are not included in current earnings but are included in Accumulated Other Comprehensive Loss. These changes in fair value will subsequently be reclassified to earnings, contemporaneously with and offsetting changes in the related hedged exposure, and presented in the same line of the income statement expected for the hedged item.

Interest Rate Risk

The Company uses interest rate swaps to manage interest rate risks on future interest payments caused by interest rate changes on its variable rate term loan facility. Changes in fair value will subsequently be reclassified into earnings as a component of Interest Expense, Net as interest is incurred on amounts outstanding under the term loan facility. The following table summarizes the Company's current interest rate swap positions for each period presented as of December 31, 2021:

Start	End	(In Millions) Notional Amount	Weighted Average Interest Rate
12/03/2018	01/01/2022	\$120	2.92%
12/03/2018	01/04/2022	\$80	2.79%

These derivative instruments are designated as cash flow hedges and, to the extent they are effective in offsetting the variability of the hedged cash flows, changes in the derivatives' fair value are not included in current earnings but are included in Accumulated Other Comprehensive Loss. Ineffectiveness measured in the hedging relationship is recorded in earnings in the period it occurs. During 2021 and 2020, there were no amounts of ineffectiveness. During 2021 and 2020, there were no amounts excluded from the measure of effectiveness.

Commodity Risk

To manage risks associated with future variability in cash flows and price risk attributable to purchases of natural gas, the Company enters into natural gas swap contracts to hedge prices for a designated percentage of its expected natural gas usage. Such contracts are designated as cash flow hedges. The contracts are carried at fair value with changes in fair value recognized in Accumulated Other Comprehensive Loss and resulting gain or loss reclassified into Cost of Sales concurrently with the recognition of the commodity consumed. The Company has hedged approximately 17% of its expected natural gas usage for 2022.

During 2021 and 2020, there were no amounts of ineffectiveness related to changes in the fair value of natural gas swap contracts. Additionally, there were no amounts excluded from the measure of effectiveness.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Foreign Currency Risk

The Company enters into forward exchange contracts to manage risks associated with foreign currency transactions and future variability of cash flows arising from those transactions that may be adversely affected by changes in exchange rates. The contracts are carried at fair value with changes in fair value recognized in Accumulated Other Comprehensive Loss and gains/losses related to these contracts are recognized in Other Expense, Net or Net Sales, when appropriate.

At December 31, 2020, multiple forward exchange contracts existed that expired on various dates throughout 2021. Those purchased forward exchange contracts outstanding at December 31, 2020, when aggregated and measured in U.S. dollars at contractual rates at December 31, 2020, had notional amounts totaling \$102 million.

No amounts were reclassified to earnings during 2021 and 2020 in connection with forecasted transactions that were considered probable of not occurring and there was no amount of ineffectiveness related to changes in the fair value of foreign currency forward contracts. Additionally, there were no amounts excluded from the measure of effectiveness during 2021 and 2020.

Derivatives not Designated as Hedges

The Company enters into forward exchange contracts to effectively hedge substantially all of its accounts receivables resulting from sales transactions and intercompany loans denominated in foreign currencies in order to manage risks associated with variability in cash flows that may be adversely affected by changes in exchange rates. At December 31, 2021 and 2020, multiple foreign currency forward exchange contracts existed, with maturities ranging up to six months. Those foreign currency contracts outstanding at December 31, 2021 and 2020, when aggregated and measured in U.S. dollars at contractual rates at December 31, 2021 and 2020, respectively, had net notional amounts totaling \$103 million and \$80 million. Unrealized gains and losses resulting from these contracts are recognized in Other Expense, Net and approximately offset corresponding recognized but unrealized gains and losses on the remeasurement of these accounts receivable.

Deal Contingent Hedge

On May 14, 2021, in connection with the AR Packaging acquisition, the Company entered into deal contingent foreign exchange forward contracts, with no upfront cash cost, to hedge €700 million of the acquisition price. These forward contracts settled October 29, 2021 concurrently with the acquisition of AR Packaging and are accounted for as derivatives under ASC 815, Derivatives and Hedging. Unrealized losses of \$48 million for the year ended December 31, 2021 resulting from these contracts are recognized in Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net on the Company's Condensed Consolidated Statements of Operations. For more information, see "Note 11 — Fair Value Measurement."

Foreign Currency Movement Effect

For the year ended December 31, 2021, 2020 and 2019 net currency exchange losses(gains) included in determining Income from Operations were \$ million, \$3 million, and \$(2) million, respectively.

NOTE 11. FAIR VALUE MEASUREMENT

The Company follows the fair value guidance integrated into the *Fair Value Measurements and Disclosures* topic of the FASB Codification in regards to financial and nonfinancial assets and liabilities. Nonfinancial assets and nonfinancial liabilities include those measured at fair value in goodwill impairment testing, asset retirement obligations initially measured at fair value, and those assets and liabilities initially measured at fair value in a business combination.

The FASB's guidance defines fair value, establishes a framework for measuring fair value and expands the fair value disclosure requirements. The accounting guidance applies to accounting pronouncements that require or permit fair value measurements. It indicates, among other things, that a fair value measurement assumes that the transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The guidance defines fair value based upon an exit price model, whereby fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The guidance clarifies that fair value should be based on assumptions that market participants would use, including a consideration of non-performance risk.

Valuation Hierarchy

The *Fair Value Measurements and Disclosures* topic establishes a valuation hierarchy for disclosure of the inputs used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows:

Level 1 inputs — quoted prices (unadjusted) in active markets for identical assets or liabilities.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Level 2 inputs — quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 inputs — unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value.

An asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The Company has determined that its financial assets and financial liabilities include derivative instruments which are carried at fair value and are valued using Level 2 inputs in the fair value hierarchy. The Company uses valuation techniques based on discounted cash flow analyses, which reflects the terms of the derivatives and uses observable market-based inputs, including forward rates and uses market price quotations obtained from third party derivatives brokers, corroborated with information obtained from third party pricing service providers.

Fair Value of Financial Instruments

As of December 31, 2021 and 2020, there has not been any significant impact to the fair value of the Company's derivative liabilities due to its own credit risk. Similarly, there has not been any significant adverse impact to the Company's derivative assets based on evaluation of the Company's counterparties' credit risks. The following table summarizes the fair value of the Company's derivative instruments:

<i>In millions</i>	Derivative Assets ^(a)		Derivative Liabilities ^(b)	
	December 31,		December 31,	
	2021	2020	2021	2020
Derivatives designated as hedging instruments:				
Interest rate contracts	\$ —	\$ —	\$ —	6
Foreign currency contracts	—	—	—	3
Commodity contracts	2	2	—	—
Total Derivatives	\$ 2	\$ 2	\$ —	9

^(a) Derivative assets of \$2 million are included in Other Current Assets as of December 31, 2021 and 2020

^(b) Derivative liabilities of \$9 million are included in Other Accrued Liabilities as of December 31, 2020

The fair values of the Company's other financial assets and liabilities at December 31, 2021 and 2020 approximately equal the carrying values reported on the Consolidated Balance Sheets except for Long-Term Debt. The fair value of the Company's Long-Term Debt (excluding finance leases and deferred financing fees) was \$5,715 million and \$3,625 million, as compared to the carrying amounts of \$5,676 million and \$3,524 million as of December 31, 2021 and 2020, respectively. The fair value of the Company's Total Debt, including the Senior Notes, are based on quoted market prices (Level 2 inputs). Level 2 valuation techniques for Long-Term Debt are based on quotations obtained from third party pricing service providers.

Effect of Derivative Instruments

The pre-tax effect of derivative instruments in cash flow hedging relationships on the Company's Consolidated Statements of Operations for the year ended December 31, 2021 and 2020 is as follows:

<i>In millions</i>	Amount of (Gain) Loss Recognized in Accumulated Other Comprehensive Loss			Location in Statement of Operations	Amount of (Gain) Loss Recognized in Statement of Operations		
	Year Ended December 31,				Year Ended December 31,		
	2021	2020	2019		2021	2020	2019
Commodity Contracts	\$ (11)	\$ 1	\$ 1	Cost of Sales	\$ (11)	\$ 6	\$ (2)
Foreign Currency Contracts	(2)	2	—	Other Expense, Net	2	—	(1)
Interest Rate Swap Agreements	—	6	6	Interest Expense, Net	6	7	1
Total	\$ (13)	\$ 9	\$ 7		\$ (3)	\$ 13	(2)

At December 31, 2021, the Company expects to reclassify \$3 million of pre-tax gain in the next twelve months from Accumulated Other Comprehensive Loss to earnings, contemporaneously with and offsetting changes in the related hedged exposure. The actual amount that will be reclassified to future earnings may vary from this amount as a result of changes in market conditions.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The (income) loss of derivative instruments not designated as hedging instruments and the deal contingent hedge on the Company's Consolidated Statements of Operations for the years ended December 31, 2021 and 2020 is as follows:

<i>In millions</i>		2021	2020	2019
Foreign Currency Contracts	Other Expense, Net	\$ (5)	\$ 9	\$ (1)
Deal Contingent Hedge	Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net	\$ 48	\$ —	\$ —

NOTE 12. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The components of Other Comprehensive Income (Loss) attributable to Graphic Packaging Holding Company are as follows:

<i>In millions</i>	Year Ended December 31,								
	2021			2020			2019		
	Pretax Amount	Tax Effect	Net Amount ^(a)	Pretax Amount	Tax Effect	Net Amount ^(a)	Pretax Amount	Tax Effect	Net Amount
Derivative Instruments Gain (Loss)	\$ 7	\$ (2)	\$ 5	\$ 5	\$ (1)	\$ 4	\$ (7)	\$ 1	\$ (6)
Pension and Postretirement Benefit Plans	53	(8)	45	126	(26)	100	10	(2)	8
Currency Translation Adjustment	(28)	—	(28)	17	—	17	10	—	10
Other Comprehensive Income (Loss)	\$ 32	\$ (10)	\$ 22	\$ 148	\$ (27)	\$ 121	\$ 13	\$ (1)	\$ 12

^(a) Amounts exclude impact of noncontrolling interest. See "Note 17 - Changes in Accumulated Other Comprehensive Loss."

The balances of Accumulated Other Comprehensive Loss Attributable to Graphic Packaging Holding Company, net of applicable taxes are as follows:

<i>In millions</i>	December 31,		
	2021	2020	2019
Accumulated Derivative Instruments Loss	\$ (8)	\$ (13)	\$ (13)
Pension and Postretirement Benefit Plans	(94)	(139)	(139)
Currency Translation Adjustment	(122)	(94)	(94)
Accumulated Other Comprehensive Loss	\$ (224)	\$ (246)	\$ (246)

NOTE 13. COMMITMENTS

The Company has entered into other long-term contracts principally for the purchase of fiber and chip processing along with commitments associated with building the new CRB paper machine in Kalamazoo, Michigan. The minimum purchase commitments extend beyond 2026. At December 31, 2021, total commitments under these contracts were as follows:

<i>In millions</i>	2021	2020
2022	\$ 140	\$ 140
2023	91	91
2024	50	50
2025	48	48
2026	17	17
Thereafter	42	42
Total	\$ 388	\$ 388

NOTE 14. ENVIRONMENTAL AND LEGAL MATTERS

Environmental Matters

The Company is subject to a broad range of foreign, federal, state and local environmental, health and safety laws and regulations, including those governing discharges to air, soil and water, the management, treatment and disposal of hazardous substances, solid waste and hazardous wastes, the investigation and remediation of contamination resulting from historical site operations and releases of hazardous substances, the recycling of packaging and the health and safety of employees. Compliance initiatives could result in significant costs, which could negatively impact the Company's consolidated financial position, results of operations or cash flows. Any failure to comply with environmental or health and safety laws and regulations or any permits and authorizations required thereunder could subject the Company to fines, corrective action or other sanctions.

Some of the Company's current and former facilities are the subject of environmental investigations and remediations resulting from historic operations and the release of hazardous substances or other constituents. Some current and former facilities have a history of industrial usage for which investigation and remediation obligations may be imposed in the future or for which indemnification claims may be asserted against the Company. Also, closures or sales of facilities may necessitate investigation and may result in remediation activities at those facilities.

The Company has established reserves for those facilities or issues where a liability is probable and the costs are reasonably estimable. The Company believes that the amounts accrued for its loss contingencies, and the reasonably possible loss beyond the amounts accrued, are not material to the Company's consolidated financial position, results of operations or cash flows. The Company cannot estimate with certainty other future compliance, investigation or remediation costs. Some costs relating to historic usage that the Company considers to be reasonably possible of resulting in liability are not quantifiable at this time. The Company will continue to monitor environmental issues at each of its facilities, as well as regulatory developments, and will revise its accruals, estimates and disclosures relating to past, present and future operations, as additional information is obtained.

Legal Matters

The Company is a party to a number of lawsuits arising in the ordinary conduct of its business. Although the timing and outcome of these lawsuits cannot be predicted with certainty, the Company does not believe that disposition of these lawsuits will have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows.

NOTE 15. BUSINESS SEGMENT AND GEOGRAPHIC AREA INFORMATION

The Company has three reportable segments as follows:

Paperboard Mills includes the eight North American paperboard mills that produce primarily CRB, CUK, and SBS, which is consumed internally to produce paperboard packaging for the Americas and Europe Packaging segments. The remaining paperboard is sold externally to a wide variety of paperboard packaging converters and brokers. The Paperboard Mills segment Net Sales represents the sale of paperboard only to external customers. The effect of intercompany transfers to the paperboard packaging segments has been eliminated from the Paperboard Mills segment to reflect the economics of the integration of these segments.

Americas Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to Consumer Packaged Goods ("CPG") companies, and cups, lids and food containers sold primarily to foodservice companies and Quick-Service Restaurants ("QSR") serving the food, beverage, and consumer product markets in the Americas.

Europe Paperboard Packaging includes paperboard packaging, primarily folding cartons, sold primarily to CPG companies serving the food, beverage and consumer product markets including healthcare and beauty primarily in Europe.

The Company allocates certain mill and corporate costs to the reportable segments to appropriately represent the economics of these segments. The Corporate and Other caption includes the Pacific Rim and Australia operating segments and unallocated corporate and one-time costs.

These segments are evaluated by the chief operating decision maker based primarily on Income from Operations as adjusted for depreciation and amortization. The accounting policies of the reportable segments are the same as those described above in "Note 1 - Nature of Business and Summary of Significant Accounting Policies."

The Company did not have any one customer who accounted for 10% or more of the Company's net sales during 2021, 2020 or 2019.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Business segment information is as follows:

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
NET SALES:			
Paperboard Mills	\$ 1,007	\$ 988	\$ 1,095
Americas Paperboard Packaging	4,996	4,650	4,234
Europe Paperboard Packaging	992	765	689
Corporate/Other/Eliminations ^(a)	161	157	142
Total	\$ 7,156	\$ 6,560	\$ 6,160
(LOSS) INCOME FROM OPERATIONS:			
Paperboard Mills ^(b)	\$ (10)	\$ (110)	\$ 33
Americas Paperboard Packaging	456	639	478
Europe Paperboard Packaging	82	66	60
Corporate and Other ^(c)	(121)	(71)	(37)
Total	\$ 407	\$ 524	\$ 534
CAPITAL EXPENDITURES:			
Paperboard Mills	\$ 615	\$ 444	\$ 208
Americas Paperboard Packaging	113	120	95
Europe Paperboard Packaging	37	40	35
Corporate and Other	37	42	15
Total	\$ 802	\$ 646	\$ 353
DEPRECIATION AND AMORTIZATION:			
Paperboard Mills	\$ 231	\$ 249	\$ 224
Americas Paperboard Packaging	176	163	165
Europe Paperboard Packaging	53	41	37
Corporate and Other	29	23	21
Total	\$ 489	\$ 476	\$ 447

^(a) Includes revenue from contracts with customers for the Australia and Pacific Rim operating segments.

^(b) Includes accelerated depreciation related to exit activities in 2021, 2020, and 2019.

^(c) Includes expenses related to business combinations, shutdown and other special charges, and exit activities.

<i>In millions</i>	December 31,		
	2021	2020	2019
ASSETS AT DECEMBER 31:			
Paperboard Mills	\$ 3,488	\$ 3,098	\$ 2,912
Americas Paperboard Packaging	3,682	3,327	3,392
Europe Paperboard Packaging	2,669	746	687
Corporate and Other	624	635	299
Total	\$ 10,458	\$ 7,805	\$ 7,290

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Business geographic area information is as follows:

<i>In millions</i>	Year Ended December 31,		
	2021	2020	2019
NET SALES:			
United States	\$ 5,543	\$ 5,200	\$ 4,913
International ^(a)	1,613	1,360	1,247
Total	\$ 7,156	\$ 6,560	\$ 6,160
LONG-LIVED ASSETS AT DECEMBER 31:			
United States	\$ 3,865	\$ 3,253	\$ 2,976
International ^(a)	812	307	278
Total	\$ 4,677	\$ 3,560	\$ 3,254

^(a) Net Sales and long-lived assets of individual countries outside of the United States are not material.

NOTE 16. EARNINGS PER SHARE

<i>In millions, except per share data</i>	Year Ended December 31,		
	2021	2020	2019
Net Income Attributable to Graphic Packaging Holding Company	\$ 204	\$ 167	\$ 207
Weighted Average Shares:			
Basic	297.1	278.8	294.1
Dilutive effect of RSUs	0.8	0.8	0.7
Diluted	297.9	279.6	294.8
Earnings Per Share — Basic	\$ 0.69	\$ 0.60	\$ 0.70
Earnings Per Share — Diluted	\$ 0.68	\$ 0.60	\$ 0.70

NOTE 17. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE LOSS

The following represents changes in Accumulated Other Comprehensive Loss attributable to Graphic Packaging Holding Company by component for the year ended December 31, 2021:

<i>In millions</i>	Derivatives Instruments	Pension and Postretirement Benefit Plans	Currency Translation Adjustments	Total
Balance at December 31, 2020	\$ (13)	\$ (139)	\$ (94)	\$ (246)
Other Comprehensive Income (Loss) before Reclassifications	8	43	(28)	23
Amounts Reclassified from Accumulated Other Comprehensive (Loss) Income ^(a)	(2)	2	—	—
Net Current-period Other Comprehensive Income (Loss)	6	45	(28)	23
Less:				
Net Current-period Other Comprehensive Income Attributable to Noncontrolling Interest	(1)	—	—	(1)
Balance at December 31, 2021	\$ (8)	\$ (94)	\$ (122)	\$ (224)

^(a) See following table for details about these reclassifications.

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following represents reclassifications out of Accumulated Other Comprehensive Loss for the year ended December 31, 2021:

In millions

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss	Affected Line Item in the Statement Where Net Income is Presented
Derivatives Instruments:		
Commodity Contracts	\$ (11)	Cost of Sales
Foreign Currency Contracts	2	Other (Income) Expense, Net
Interest Rate Swap Agreements	6	Interest Expense, Net
	<u>(3)</u>	Total before Tax
	1	Tax Expense
	<u>\$ (2)</u>	Total, Net of Tax
Amortization of Defined Benefit Pension Plans:		
Actuarial Losses	5 ^(a)	
	<u>5</u>	Total before Tax
	<u>(1)</u>	Tax Expense
	<u>\$ 4</u>	Total, Net of Tax
Amortization of Postretirement Benefit Plans:		
Actuarial Gains	(2) ^(a)	
	<u>\$ (2)</u>	Total, Net of Tax
Total Reclassifications for the Period	<u>\$ —</u>	

^(a) These accumulated other comprehensive loss components are included in the computation of net periodic pension cost (see "Note 8 - Pensions and Other Postretirement Benefits").

NOTE 18. EXIT ACTIVITIES

During 2019, the Company announced its plans to invest in a CRB platform optimization project, which included an investment in a new CRB paper machine in Kalamazoo, Michigan. At the time of the announcement, the Company expected to close two of its smaller CRB mills in 2022 in order to remain capacity neutral. During the third quarter of 2021, the Company decided to continue to operate one of these smaller CRB mills at least through 2022.

In March 2020, the Company made the decision to close the White Pigeon, Michigan CRB mill and shut down the PM1 containerboard machine in West Monroe, Louisiana. During the second quarter of 2020, the Company closed the White Pigeon, Michigan CRB mill and shut down the PM1 containerboard machine.

In June 2020, the Company made the decision to close certain converting plants that were acquired from Greif. The Burlington, North Carolina converting facility and the Los Angeles, California converting facility were closed during 2020.

The Company accounts for the costs associated with these closures in accordance with ASC 360, *Impairment or Disposal of Long-Lived Assets* ("ASC 360"), ASC 420, *Exit or Disposal Costs Obligations* ("ASC 420") and ASC 712 *Compensation-Nonretirement Post-Employment Benefits* ("ASC 712"). The Company recorded \$38 million and \$51 million of exit costs during 2021 and 2020, respectively. Other costs associated with the start-up of the new CRB paper machine will be recorded in the period in which they are incurred. These costs are included in the Corporate and Other caption in "Note 15 - Business Segment and Geographic Area Information."

GRAPHIC PACKAGING HOLDING COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table summarizes the costs incurred during 2021 and 2020 related to these restructurings:

<i>In millions</i>	Location in Statement of Operations	Year Ended December 31,		
		2021	2020	2019
Severance costs and other ^(a)	Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net	\$ 21	\$ 11	8
Accelerated depreciation	Cost of Sales	17	26	5
Inventory and asset write-offs	Business Combinations, Shutdown and Other Special Charges, and Exit Activities, Net	—	14	2
Total		\$ 38	\$ 51	15

^(a) Costs incurred include activities for post-employment benefits, retention bonuses, incentives and professional services.

The following table summarizes the balance of accrued expenses related to restructuring:

<i>In millions</i>	Total
Balance at December 31, 2019	\$ 7
Costs incurred	11
Payments	(6)
Balance at December 31, 2020	\$ 12
Costs incurred	21
Payments	(20)
Adjustments ^(a)	(5)
Balance at December 31, 2021	\$ 8

^(a) Adjustments related to changes in estimates of severance costs.

In conjunction with the CRB platform optimization project and closure of the smaller CRB Mill, the Company currently expects to incur charges associated with these exit activities for post-employment benefits, retention bonuses and incentives in the range of \$15 million to \$20 million, for accelerated depreciation and inventory and asset write-offs in the range of \$45 million to \$50 million and for start-up charges of for the new CRB paper machine of approximately \$25 million. Through December 31, 2021, the Company has incurred cumulative exit activity charges for post-employment benefits, retention bonuses and incentives of \$15 million, accelerated depreciation of \$45 million, and start-up charges for the new CRB paper machine of \$21 million.

For the closures of the White Pigeon, Michigan CRB mill and the shutdown of the PM1 containerboard machine in West Monroe, Louisiana, the Company has incurred cumulative exit activity charges for post-employment benefits of \$2 million and accelerated depreciation and inventory and asset write-offs of \$17 million through December 31, 2021. The Company does not expect to incur any additional significant costs charges related to these closures.

NOTE 19. RELATED PARTY TRANSACTIONS

In connection with the NACP Combination, the Company entered into agreements with IP for transition services, fiber procurement fees, and corrugated products and ink supply. Payments to IP for the twelve months ended December 31, 2021 for fiber procurement fees and corrugated products were \$4 million (related to pass through wood purchases of \$81 million) and \$13 million, respectively. Payments to IP for the twelve months ended December 31, 2020 for fiber procurement fees and corrugated products were \$12 million (related to pass through wood purchases of \$204 million) and \$28 million, respectively. As discussed in "Note 1 - Nature of Business and Summary of Significant Accounting Policies", IP has no ownership interest remaining in GPIIP as of May 21, 2021.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Graphic Packaging Holding Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Graphic Packaging Holding Company and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the two years in the period ended December 31, 2021, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Americraft Carton, Inc. and AR Packaging Group AB from its assessment of internal control over financial reporting as of December 31, 2021 because they were acquired by the Company in purchase business combinations during 2021. We have also excluded Americraft Carton, Inc. and AR Packaging Group AB from our audit of internal control over financial reporting. Americraft Carton, Inc. and AR Packaging Group AB are wholly-owned subsidiaries whose total assets and total net sales excluded from management's assessment and our audit of internal control over financial reporting represent 1.1% and 7.3% of total assets, respectively and 1.5% and 2.5% of total net sales, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2021.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Acquisition of AR Packaging Group AB – Customer Relationships Intangible Asset Valuation

As described in Notes 1 and 4 to the consolidated financial statements, the Company completed its acquisition of AR Packaging Group AB ("AR Packaging") for total cash consideration of \$1,412 million, net of cash acquired of \$75 million on November 1, 2021, which resulted in recording a customer relationships intangible asset of \$439 million. As disclosed by management, customer relationships were assigned a fair value using a discounted cash flow analysis. Estimating the fair value involved the use of significant judgments and assumptions by management, including the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected earnings before interest, taxes, depreciation, and amortization ("EBITDA") margins, tax rate, depreciation, contributory asset charge, and future earnings projections, among others.

The principal considerations for our determination that performing procedures relating to the valuation of the customer relationships intangible asset from the AR Packaging acquisition is a critical audit matter are (i) the high degree of auditor judgment and subjectivity in performing procedures related to the fair value of the customer relationships intangible asset due to the significant judgment by management when determining the estimated fair value of the customer relationships intangible asset acquired; (ii) the significant audit effort in evaluating management's significant assumptions related to the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected EBITDA margins, tax rate, depreciation, and contributory asset charge; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the acquisition accounting, including controls over management's valuation of the customer relationships intangible asset and the development of the significant assumptions related to the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected EBITDA margins, tax rate, depreciation, and contributory asset charge. These procedures also included, among others (i) reading the purchase agreement; (ii) evaluating management's accounting related to the business combination; and (iii) testing management's process for estimating the fair value of the customer relationships intangible asset acquired. Testing management's process included evaluating the appropriateness of the discounted cash flow analysis, testing the completeness and accuracy of the underlying data provided by management, and evaluating the reasonableness of the significant assumptions related to the discount rate, annual revenue growth rates, customer attrition rates, projected operating expenses, projected EBITDA margins, tax rate, depreciation, and contributory asset charge. Evaluating the reasonableness of the annual revenue growth rates, projected operating expenses, and projected EBITDA margins involved considering the past performance of AR Packaging and economic and industry forecasts. Evaluating the reasonableness of the customer attrition rates involved considering AR Packaging's historical revenue by customer. Evaluating the reasonableness of the tax rate involved considering the blended state and federal rates for the jurisdictions in which AR Packaging operates. Evaluating the reasonableness of depreciation involved considering the relationship of depreciation to revenue. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the discounted cash flow analysis and in evaluating the reasonableness of the significant assumptions related to the discount rate, customer attrition rates, and contributory asset charge.

Goodwill Impairment Assessment – Foodservice Reporting Unit

As described in Note 1 to the consolidated financial statements, the Company's consolidated goodwill balance was \$2,015 million as of December 31, 2021. As disclosed by management, the goodwill associated with the Foodservice reporting unit was \$43 million as of December 31, 2021. Management tests goodwill for impairment annually as of October 1, as well as whenever events or changes in circumstances suggest that the estimated fair value of a reporting unit may no longer exceed its carrying amount. An impairment charge is recognized for the amount by which the carrying amount of a reporting unit exceeds its fair value. When performing the quantitative analysis, the estimated fair value of each reporting unit is determined by utilizing a discounted cash flow analysis based on the Company's forecasts, discounted using a weighted average cost of capital and market indicators of terminal year cash flows based upon a multiple of EBITDA. In estimating the fair value of the Foodservice reporting unit, management considers a number of factors, including but not limited to, future operating results, business plans, economic projections of revenues and operating margins, estimated future cash flows, and market data and analysis.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment for the Foodservice reporting unit is a critical audit matter are (i) the high degree of auditor judgment and subjectivity in performing procedures related to the fair value of the reporting unit due to the significant judgment by management when determining the estimated fair value of the Foodservice reporting unit; (ii) the significant audit effort in evaluating management's significant assumptions related to economic projections of revenues and operating margins and the terminal year EBITDA multiple; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the Company's Foodservice reporting unit and the development of the significant assumptions related to economic projections of revenues and operating margins and the terminal year EBITDA multiple. These procedures also included, among others, testing management's process for determining the fair value of the Foodservice reporting unit; evaluating the appropriateness of the discounted cash flow analysis; and evaluating the reasonableness of significant assumptions related to economic projections of revenues and operating margins and the terminal year EBITDA multiple. Evaluating assumptions related to economic projections of revenues and operating margins involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the Foodservice reporting unit; (ii) the consistency with external market and industry data; and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the discounted cash flow analysis and in evaluating the reasonableness of the terminal year EBITDA multiple significant assumption.

/s/ PricewaterhouseCoopers LLP
Atlanta, Georgia
February 22, 2022

We have served as the Company's auditor since 2020.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Graphic Packaging Holding Company

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of operations, comprehensive income, shareholders' equity and cash flows of Graphic Packaging Holding Company (the Company) for the year ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the results of its operations and its cash flows for the year ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We served as the Company's auditor from 2008 to 2020.

Atlanta, Georgia
February 10, 2020

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The Company's management has established disclosure controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed, summarized and reported within time periods specified in the Securities and Exchange Commission rules and forms. Such disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management to allow timely decisions regarding required disclosure.

Based on management's evaluation as of the end of the period covered by this Annual Report on Form 10-K, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Exchange Act) were effective as of December 31, 2021, the end of the period covered by this Annual Report on Form 10-K.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company, as such term is defined in Exchange Act Rule 13a-15(f). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only with proper authorizations; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. The Company's management did not include in its assessment the internal controls of Americraft Carton, Inc. ("Americraft") and AR Packaging Group AB ("AR Packaging"), which were acquired by the Company in business combinations in 2021 and are included in the Company's results for the year ended December 31, 2021. As of December 31, 2021, the Americraft and AR Packaging acquisitions total assets represent 1.1% and 7.3% of the Company's consolidated total assets, respectively. Net Sales attributable to the Americraft and AR Packaging acquisitions represented 1.5% and 2.5% of the Company's consolidated Net Sales for the twelve months ended December 31, 2021, respectively.

The Company's management, under the supervision of and with the participation of the President and Chief Executive Officer and the Chief Financial Officer, assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2021 based on criteria for effective control over financial reporting described in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment the Company's management concluded that its internal control over financial reporting was effective as of December 31, 2021.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2021 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not Applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Pursuant to Instruction G(3) to Form 10-K, the information relating to Directors of the Registrant, compliance with Section 16(a) of the Exchange Act, compliance with the Company's Code of Ethics, and certain other information required by Item 9 is incorporated by reference to the Registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which is to be filed pursuant to Regulation 14A within 120 days after the end of the Registrant's fiscal year ended December 31, 2021.

ITEM 11. EXECUTIVE COMPENSATION

Pursuant to Instruction G(3) to Form 10-K, the information required by Item 11 is incorporated by reference to the Registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which is to be filed pursuant to Regulation 14A within 120 days after the end of the Registrant's fiscal year ended December 31, 2021.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Pursuant to Instruction G(3) to Form 10-K, the information required by Item 12 is incorporated by reference to the Registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which is to be filed pursuant to Regulation 14A within 120 days after the end of the Registrant's fiscal year ended December 31, 2021.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Pursuant to Instruction G(3) to Form 10-K, the information required by Item 13 is incorporated by reference to the Registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which is to be filed pursuant to Regulation 14A within 120 days after the end of the Registrant's fiscal year ended December 31, 2021.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Pursuant to Instruction G(3) to Form 10-K, the information required by Item 14 is incorporated by reference to the Registrant's definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which is to be filed pursuant to Regulation 14A within 120 days after the end of the Registrant's fiscal year ended December 31, 2021.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- a. Financial statements, financial statement schedule and exhibits filed as part of this report:
1. Consolidated Statements of Operations for each of the three years in the period ended December 31, 2021
Consolidated Statements of Comprehensive Income for each of the three years in the period ended December 31, 2021
Consolidated Balance Sheets as of December 31, 2021, and 2020
Consolidated Statements of Shareholders' Equity for each of the three years in the period ended December 31, 2021
Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2021
Notes to Consolidated Financial Statements
Reports of Independent Registered Public Accounting Firms
 2. All schedules are omitted as the information required is either included elsewhere in the consolidated financial statements herein or is not applicable.
 3. Exhibits to Annual Report on Form 10-K for Year Ended December 31, 2021.

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of New Giant Corporation. Filed as Exhibit 3.1 to Graphic Packaging Holding Company's Current Report on Form 8-K filed on March 10, 2008 and incorporated herein by reference.
3.2	Bylaws of Graphic Packaging Holding Company, as amended on May 20, 2015. Filed as Exhibit 3.1 to Graphic Packaging Holding Company's Current Report on Form 8-K filed on May 27, 2015 and incorporated herein by reference.
3.3	Certificate of Formation of Graphic Packaging International, LLC. Filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on January 1, 2018 and incorporated herein by reference.
3.4	Amended and Restated Limited Liability Company Operating Agreement of Graphic Packaging International, LLC. Filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on January 1, 2018 and incorporated herein by reference.
4.1	Indenture dated as of November 6, 2014, by and among Graphic Packaging International, Inc., the guarantors named therein and U.S. Bank National Association, as trustee. Filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on November 6, 2014 and incorporated herein by reference.
4.2	First Supplemental Indenture dated as of November 6, 2014 by and among Graphic Packaging International, Inc. the guarantors named therein and U.S. Bank National Association, as trustee. Filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on November 6, 2014 and incorporated herein by reference.
4.3	Second Supplemental Indenture dated as of August 11, 2016 by and among Graphic Packaging International Inc., Graphic Packaging Holding Company, the other guarantors named therein and U.S. Bank National Association as trustee. Filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on August 11, 2016 and incorporated herein by reference.
4.4	Supplemental Indenture among Graphic Packaging International, Inc., Graphic Packaging Holding Company, the other guarantors party thereto and U.S. Bank National Association, as Trustee, with respect to the 4.875% Senior Notes due 2022. Filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on October 24, 2017 and incorporated herein by reference.
4.5	Supplemental Indenture among Graphic Packaging International, Inc., Graphic Packaging Holding Company, the other guarantors party thereto and U.S. Bank National Association, as Trustee, with respect to the 4.125% Senior Notes due 2024. Filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on October 24, 2017 and incorporated herein by reference.

- 4.6 [Third Supplemental Indenture dated as of June 25, 2019, by and among Graphic Packaging International, LLC, the guarantors listed therein and U.S. Bank, National Association. Filed as Exhibit 4.2 to Graphic Packaging Holding Company and Graphic Packaging International, LLC's current report on Form 8-K filed on June 25, 2019 and incorporated herein by reference.](#)
- 4.7 [Fourth Supplemental Indenture dated March 6, 2020, by and among Graphic Packaging International, LLC, the guarantors listed therein and U.S. Bank National Association, as Trustee, with respect to the 3.5% Senior Notes due 2028. Filed as Exhibit 4.2 to the Registrant's Form 8-K filed on March 6, 2020 and incorporated herein by reference.](#)
- 4.8 [Fifth Supplemental Indenture dated August 20, 2020, by and among Graphic Packaging International, LLC, the guarantors listed therein and U.S. Bank National Association, as Trustee, with respect to the 3.5% Senior Notes due 2029. Filed as Exhibit 4.2 to the Registrant's Form 8-K filed on August 31, 2020 and incorporated herein by reference.](#)
- 4.9 [Sixth Supplemental Indenture dated as of March 8, 2021, by and among Graphic Packaging International, LLC, Graphic Packaging International Partners, LLC, the guarantors listed therein and U.S. Bank, N.A. \(including the form of Note attached as an exhibit thereto\). Filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on March 8, 2021 and incorporated herein by reference.](#)
- 4.10 [Seventh Supplemental Indenture, dated as of November 19, 2021, by and among Graphic Packaging International, LLC, Graphic Packaging International Partners, LLC, the guarantors listed therein and U.S. Bank, National Association \(including the form of Note attached as an exhibit thereto\). Filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on November 19, 2021 and incorporated herein by reference.](#)
- 4.11 [Eighth Supplemental Indenture, dated as of November 19, 2021, by and among Graphic Packaging International, LLC, Graphic Packaging International Partners, LLC, the guarantors listed therein, U.S. Bank, National Association, Elavon Financial Services DAC, UK Branch, and Elavon Financial Services DAC \(including the form of Note attached as an exhibit thereto\). Filed as Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed on November 19, 2021 and incorporated herein by reference.](#)
- 10.1* [GPI U.S. Consolidated Pension Plan Master Document as amended and restated, effective January 1, 2017. Filed as exhibit 10.1 to the Registrant's Annual Report on Form 10-K filed on February 8, 2017 and incorporated herein by reference.](#)
- 10.2* [Second Amendment to the GPI Savings Plan as amended and restated, effective January 1, 2015. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on April 28, 2016 and incorporated herein by reference.](#)
- 10.3* [Third Amendment to the GPI Savings Plan as amended and restated, effective January 1, 2015. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on April 28, 2016 and incorporated herein by reference.](#)
- 10.4* [Fourth Amendment to the GPI Savings Plan as amended and restated, effective January 1, 2015. Filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on April 28, 2016 and incorporated herein by reference.](#)
- 10.5* [Amended and Restated Employment Agreement dated as of November 19, 2015 by and among Graphic Packaging International, Inc., the Registrant and Michael P. Doss. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on November 19, 2015 and incorporated herein by reference.](#)
- 10.6* [Graphic Packaging Excess Benefit Plan, as amended and restated, effective as of January 1, 2009. Filed as Exhibit 10.22 to Registrant's Annual Report on Form 10-K filed on February 23, 2010 and incorporated herein by reference.](#)
- 10.7* [Graphic Packaging Supplemental Retirement Plan, as amended and restated, effective as of January 1, 2009. Filed as Exhibit 10.23 to Registrant's Annual Report on Form 10-K filed on February 23, 2010 and incorporated herein by reference.](#)
- 10.8* [Graphic Packaging Holding Company 2014 Omnibus Stock and Incentive Compensation Plan effective as of May 21, 2014. Filed as Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed on April 10, 2014 and incorporated herein by reference.](#)
- 10.9* [Graphic Packaging International, Inc. Management Incentive Plan, as amended and restated as of January 1, 2020. Attached as Exhibit 10.9 to the Registrant's Annual Report on Form 10-K filed on February 16, 2021 and incorporated herein by reference.](#)
- 10.10 [Master Services Agreement dated November 29, 2007 by and between Graphic Packaging International, Inc. and Perot Systems Corporation. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on December 5, 2007 and incorporated herein by reference.](#)
- 10.11* [Graphic Packaging International, Inc. Supplemental Plan for Participants in the Riverwood International Employees Retirement Plan, as amended and restated, effective as of January 1, 2009. Filed as Exhibit 10.36 to the Registrant's Annual Report on Form 10-K filed on February 23, 2010 and incorporated herein by reference.](#)

- 10.12* [Riverwood International Change in Control Supplemental Retirement Plan, as amended and restated, effective as of January 1, 2008. Filed as Exhibit 10.37 to Graphic Packaging Holding Company's Annual Report on Form 10-K filed on February 23, 2010 and incorporated herein by reference.](#)
- 10.13 [Amended and Restated Form of Indemnification Agreement for Directors. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 4, 2010 and incorporated herein by reference.](#)
- 10.14* [First Amendment to the Graphic Packaging International, Inc. Supplemental Plan for Participants in the Riverwood International Employees Retirement Plan. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 24, 2012 and incorporated herein by reference.](#)
- 10.15* [Employment Agreement dated as of April 1, 2012 by and among Graphic Packaging International, Inc., Graphic Packaging Holding Company and Stephen Scherger. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on April 5, 2012 and incorporated herein by reference.](#)
- 10.16 [First Amendment to Master Services Agreement dated as of September 22, 2008 by and between Graphic Packaging International, Inc. and Perot Systems Corporation. Filed as Exhibit 10.22 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.](#)
- 10.17 [Second Amendment to Master Services Agreement effective as of August 1, 2012 by and between Graphic Packaging International, Inc. and Dell Marketing L.P. \(as assignee of Perot Systems Corporation\). Filed as Exhibit 10.30 to the Registrant's Annual Report on Form 10-K filed on February 12, 2016 and incorporated herein by reference.](#)
- 10.18* [Fifth Amendment to the GPI Savings Plan as amended and restated, effective January 1, 2015. Filed as exhibit 10.24 to the Registrant's Annual Report on Form 10-K filed on February 8, 2017 and incorporated herein by reference.](#)
- 10.19* [GPI Savings Plan, as amended and restated effective January 1, 2015. Filed as Exhibit 10.32 to the Registrant's Annual Report on Form 10-K filed on February 12, 2016 and incorporated herein by reference.](#)
- 10.20* [First Amendment to the GPI Savings Plan, effective January 1, 2015. Filed as Exhibit 10.33 to the Registrant's Annual Report on Form 10-K filed on February 12, 2016 and incorporated herein by reference.](#)
- 10.21* [Amended and Restated Employment Agreement among the Registrant, Graphic Packaging International, Inc. and Joseph P. Yost effective September 1, 2015. Filed as Exhibit 10.38 to the Registrant's Annual Report on Form 10-K filed on February 12, 2016 and incorporated herein by reference.](#)
- 10.22* [Graphic Packaging International, Inc. Executive Severance Plan dated as of February 25, 2014. Filed as Exhibit 10.39 to the Registrant's Annual Report on Form 10-K filed on February 12, 2016 and incorporated herein by reference.](#)
- 10.23* [First Amendment to the Graphic Packaging Holding Company 2014 Omnibus Stock and Incentive Compensation Plan effective January 1, 2017. Filed as exhibit 10.33 to the Registrant's Annual Report on Form 10-K filed on February 8, 2017 and incorporated herein by reference.](#)
- 10.24 [Local Country Agreement - European Union Addendum effective as of November 1, 2016 to the Master Services Agreement between Graphic Packaging International, Inc. and Dell Marketing, L.P., as amended. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on April 26, 2017 and incorporated herein by reference.](#)
- 10.25 [Third Amendment to Master Services Agreement dated as of November 1, 2016 between Graphic Packaging International, Inc. and Dell Marketing, L.P. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on April 26, 2017 and incorporated herein by reference.](#)
- 10.26 [Fourth Amendment to Master Services Agreement dated as of March 1, 2017 between Graphic Packaging International, Inc. and NTT DATA Services, LLC, as successor-in-interest to Dell Marketing, L.P. Filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on April 26, 2017 and incorporated herein by reference.](#)
- 10.27* [First Amendment to the GPI US Consolidated Pension Plan, dated as of May 19, 2017 and effective as of January 1, 2017. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on July 26, 2017 and incorporated herein by reference.](#)
- 10.28* [Sixth Amendment to the GPI Savings Plan, dated as of June 27, 2017 and effective as of January 1, 2015. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on July 26, 2017 and incorporated herein by reference.](#)
- 10.29* [Graphic Packaging International, Inc. Non-Qualified Deferred Compensation Plan, as amended and restated effective November 1, 2017. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on October 25, 2017 and incorporated herein by reference.](#)
- 10.30* [First Amendment to the Amended and Restated Graphic Packaging International, Inc. Non-Qualified Deferred Compensation Plan effective January 1, 2018. Filed as Exhibit 10.51 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.](#)

10.31*	Second Amendment to the GPI US Consolidated Pension Plan dated as of November 8, 2017. Filed as Exhibit 10.52 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.
10.32*	Third Amendment to the GPI US Consolidated Pension Plan effective as of January 1, 2018 Filed as Exhibit 10.53 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.
10.33*	Seventh Amendment to the GPI Savings Plan effective as of January 1 2018 Filed as Exhibit 10.54 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.
10.34*	Eighth Amendment to the GPI Savings Plan effective as of January 1, 2018 Filed as Exhibit 10.55 to the Registrant's Annual Report on Form 10-K filed on February 7, 2018 and incorporated herein by reference.
10.35*	Tenth Amendment to the GPI Savings Plan dated as of November 12, 2018. Filed as Exhibit 10.49 to the Registrant's Annual Report on Form 10-K filed on February 13, 2019 and incorporated herein by reference.
10.36*	Fourth Amendment to the GPI US Consolidated Pension Plan dated as of December 20, 2018. Filed as Exhibit 10.50 to the Registrant's Annual Report on Form 10-K filed on February 13, 2019 and incorporated herein by reference.
10.37*	Fifth Amendment to the GPI US Consolidated Pension Plan effective as of January 1, 2017. Filed as Exhibit 10.44 to the Registrant's Annual report on Form 10-K filed on February 11, 2020 and incorporated herein by reference.
10.38	Ninth Amendment to the GPI Savings Plan. Filed as Exhibit 10.1 to the Registrant's Form 10-Q filed on July 24, 2018 and incorporated herein by reference.
10.39	Non-Participating Single Premium Group Annuity Contract Proposal dated January 16, 2020 by and among Graphic Packaging International, LLC, American General Life Insurance Company and The United States Life Insurance Company in the City of New York. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on April 21, 2020 and incorporated herein by reference.
10.40	Eleventh Amendment to the GPI Savings Plan dated as of December 9, 2020.
10.41	Twelfth Amendment to the GPI Savings Plan dated as of December 17, 2020.
10.42	Thirteenth Amendment to the GPI Savings Plan dated as of March 25, 2021.
10.43	Fourteenth Amendment to the GPI Savings Plan dated as of November 10, 2021.
10.44	Fifteenth Amendment to the GPI Savings Plan dated as of December 14, 2021.
10.45*	Directors' Non-Qualified Deferred Compensation Plan effective January 1, 2021. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 filed on April 27, 2021 and incorporated herein by reference.
10.46	Consent and Waiver Agreement dated as of February 16, 2021 by and among Graphic Packaging International Partners, LLC, Graphic Packaging Holding Company, GPI Holding III, LLC and International Paper Company. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 16, 2021 and incorporated herein by reference.
10.47	Amendment dated as of March 1, 2021 to the Third Amended and Restated Credit Agreement dated as of January 1, 2018, by and among Graphic Packaging International, LLC and certain subsidiaries thereof as Borrowers, the lenders and agents named therein, and Bank of America, N.A., as administrative agent. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on March 1, 2021 and incorporated herein by reference.
10.48	Fourth Amended and Restated Credit Agreement dated as of April 1, 2021 by and among Graphic Packaging International, LLC and certain subsidiaries thereof as Borrowers, the lenders and agents named therein, and Bank of America, N.A., as Administrative Agent. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on April 1, 2021 and incorporated herein by reference.
10.49	Share Purchase Agreement dated May 12, 2021 among Sarcina Holdings S.a.r.l., the other sellers named therein and Graphic Packaging International Europe Holdings B.V. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 14, 2021 and incorporated herein by reference.
10.50	Consent and Waiver Agreement dated as of May 19, 2021 by and among Graphic Packaging International Partners, LLC, Graphic Packaging Holding Company, GPI Holding I, Inc. and International Paper Company. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 20, 2021 and incorporated herein by reference.

10.51	Incremental Facility Amendment by and among Graphic Packaging International, LLC, as Borrower, Graphic Packaging International Partners, LLC and Field Container Queretaro (USA), L.L.C., as Guarantors, Bank of America, N.A. as Administrative Agent and CoBank, ACB, as Incremental Term A-3 Lead Arranger and Incremental Term A-3 Lender. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on July 21, 2021 and incorporated herein by reference.
10.52	Amendment No. 1 to the Fourth Amended and Restated Credit Agreement and Fourth Amended and Restated Guarantee and Collateral Agreement and Incremental Facility Amendment (Incremental Euro Tranche Increase and Incremental Euro Term Facility), by and among Graphic Packaging International, LLC and certain subsidiaries thereof as Borrowers, the lenders and agents named therein and Bank of America, N.A., as Administrative Agent. Filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on July 21, 2021 and incorporated herein by reference.
10.53	Incremental Facility Amendment by and among Graphic Packaging International, LLC, as Borrower, Graphic Packaging International Partners, LLC and Field Container Queretaro (USA), L.L.C. as Guarantors, Bank of America, N.A., as Administrative Agent and the Incremental Term A-4 Lenders party thereto, and acknowledged and agreed to by Graphic Packaging Holding Company. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on October 6, 2021 and incorporated herein by reference.
14.1	Code of Business Conduct and Ethics dated as of December 23, 2020.
21.1	List of Subsidiaries.
22.1	Guarantors and Issuers of Guaranteed Securities.
23.1	Consent of Independent Registered Public Accounting Firms.
24.1	Power of Attorney. Incorporated by reference to the signature page of this Annual Report on Form 10-K.
31.1	Certification required by Rule 13a-14(a).
31.2	Certification required by Rule 13a-14(a).
32.1	Certification required by Section 1350 of Chapter 63 of Title 18 of the United States Code.
32.2	Certification required by Section 1350 of Chapter 63 of Title 18 of the United States Code.
101.INS	Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File – the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document (included in Exhibit 101).

* Executive compensation plan or agreement

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GRAPHIC PACKAGING HOLDING COMPANY
(Registrant)

/s/ Stephen R. Scherger
Stephen R. Scherger

Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

February 22, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ Michael P. Doss
Michael P. Doss

President and Chief Executive Officer
(Principal Executive Officer)

February 22, 2022

/s/ Stephen R. Scherger
Stephen R. Scherger

Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

February 22, 2022

/s/ Charles D. Lischer
Charles D. Lischer

Senior Vice President and Chief Accounting Officer
(Principal Accounting Officer)

February 22, 2022

POWER OF ATTORNEY

Each of the directors of the Registrant whose signature appears below hereby appoints Stephen R. Scherger and Lauren S. Tashma, and each of them severally, as his or her attorney-in-fact to sign in his or her name and behalf, in any and all capacities stated below, and to file with the Securities and Exchange Commission any and all amendments to this report on Form 10-K, making such changes in this report on Form 10-K as appropriate, and generally to do all such things on their behalf in their capacities as directors and/or officers to enable the Registrant to comply with the provisions of the Securities Exchange Act of 1934, and all requirements of the Securities and Exchange Commission.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Laurie Brlas</u> Laurie Brlas	Director	February 22, 2022
<u>/s/ David D. Campbell</u> David D. Campbell	Director	February 22, 2022
<u>/s/ Paul D. Carrico</u> Paul D. Carrico	Director	February 22, 2022
<u>/s/ Michael P. Doss</u> Michael P. Doss	Director, President and Chief Executive Officer	February 22, 2022
<u>/s/ Robert A. Hagemann</u> Robert A. Hagemann	Director	February 22, 2022
<u>/s/ Philip R. Martens</u> Philip R. Martens	Chairman of the Board	February 22, 2022
<u>/s/ Mary K. Rhinehart</u> Mary K. Rhinehart	Director	February 22, 2022
<u>/s/ Dean A. Scarborough</u> Dean A. Scarborough	Director	February 22, 2022
<u>/s/ Larry M. Venturelli</u> Larry M. Venturelli	Director	February 22, 2022
<u>/s/ Lynn A. Wentworth</u> Lynn A. Wentworth	Director	February 22, 2022



**ELEVENTH AMENDMENT TO THE
GPI SAVINGS PLAN
(As Amended and Restated Effective January 1, 2015)**

WHEREAS, Graphic Packaging International, LLC (the “Company”) maintains for the benefit of its employees the GPI Savings Plan (the “Plan”); and

WHEREAS, Section 13.1 of the Plan authorizes the Board of Directors of Graphic Packaging Holding Company (the “Board”) to amend the Plan at any time; and

WHEREAS, the Board has delegated to the Retirement Committee of Graphic Packaging International, LLC (the “Retirement Committee”) the responsibility to make certain amendments to the Plan; and

WHEREAS, the Company has acquired the Consumer Packaging Group (the “Greif Transaction”) of Greif, Inc. (“Greif”); and

WHEREAS, in connection with the Greif Transaction, certain employees of Greif became employees of the Company; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to recognize employees’ service with Greif for purposes of the Plan; and

WHEREAS, the Company has agreed to acquire substantially all of the assets (the “Artistic Carton Transaction”) of Artistic Carton Company (“Artistic Carton”) and assume sponsorship of the Artistic Carton Company Profit Sharing Plan with 401(k) Features (the “Artistic Carton Plan”); and

WHEREAS, in connection with the Artistic Carton Transaction, certain employees of Artistic Carton will become employees of the Company; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to (i) recognize employees’ service with Artistic Carton for purposes of the Plan, (ii) merge the Artistic Carton Plan into the Plan; and

WHEREAS, the Company has acquired the Omaha, Nebraska folding carton facility (the “Quad Transaction”) of Quad/Graphics, Inc. (“Quad”); and

WHEREAS, in connection with the Quad Transaction, certain employees of Quad became employees of the Company; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to recognize employees’ service with Quad for purposes of the Plan; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to allow certain participants affected by the COVID-19 pandemic to receive distributions from their Plan accounts in accordance with the Coronavirus Aid, Relief, and Economic Security (CARES) Act;

NOW, THEREFORE, BE IT RESOLVED, that the Plan is hereby amended as follows:

1. Effective as of March 1, 2021, the Artistic Carton Company Profit Sharing Plan with 401(k) Features be and hereby is merged into the Plan.

2. Effective as of March 1, 2021, Article I of the Plan is amended by adding immediately following Section 1.9 thereof, the following new Sections 1.9A and 1.9B:

1.9A Artistic Carton Employer Account means the portion of a Participant's Company Account attributable to amounts directly transferred to this Plan that consist of employer contributions maintained under the Artistic Carton Company Profit Sharing Plan with 401(k) Features.

1.9B Artistic Carton Match Account means the portion of a Participant's Matching Account attributable to amounts directly transferred to this Plan that consist of matching contributions maintained under the Artistic Carton Company Profit Sharing Plan with 401(k) Features.

3. Effective as of March 1, 2021, Section 1.18 of the Plan is amended to read as follows:

1.18 Company Contribution Account means the separate subaccount established and maintained on behalf of a Participant or Beneficiary to reflect his interest in the Trust Fund attributable to company contributions, which is comprised of his:

- (a) Graphic Employer Account;
- (b) Hourly Field Automatic Contribution Account;
- (c) Pre-1987 Graphic Employer Account;
- (d) Salaried Field Profit-Sharing Account;
- (e) Salaried Smurfit DB Replacement Account;
- (f) Supplemental Employer Contribution Account;
- (g) Rose City Profit Sharing Account; and
- (h) Artistic Carton Employer Account.

4. Effective as of March 1, 2021, Section 1.59 of the Plan is amended to read as follows:

1.59 Matching Account means the separate subaccount established and maintained on behalf of a Participant or Beneficiary to reflect his interest in the Trust Fund attributable to matching contributions, which is comprised of his:

- (a) GPI Employer Match Account;
- (b) Hourly Field Employer Match Account;
- (c) Match Direct - Graded (Pre-2008 Smurfit Match) Account;
- (d) Pre-2004 RIC Match Account;

- (e) Salaried Field Employer Non-Safe Harbor Match Account;
- (f) Rose City Match Account; and
- (g) Artistic Carton Match Account.

5. Effective March 1, 2021, Section 1.95 of the Plan is amended by adding to the end thereof the following:

“Transfer Account” also includes the following Transfer Contributions received from the Artistic Carton Company Profit Sharing Plan with 401(k) Features, which, unless otherwise provided in the Plan, will be treated in the same manner as the corresponding Accounts under the Plan below:

<u>Prior Plan</u>	<u>Prior Plan Account/Contribution</u>	<u>Plan Account</u>
Artistic Carton Company Profit Sharing Plan with 401(k) Features	Elective Deferral Contributions	Before-Tax Account
Artistic Carton Company Profit Sharing Plan with 401(k) Features	Matching Contributions	Artistic Carton Match Account
Artistic Carton Company Profit Sharing Plan with 401(k) Features	Employer Contributions	Artistic Carton Employer Account
Artistic Carton Company Profit Sharing Plan with 401(k) Features	Rollover Contributions	Rollover Account

6. Effective as of April 1, 2020, Subsection 1.101 of the Plan is amended by adding the following sentence to the end thereof:

An Employee's period of service with Greif, Inc., to the extent not otherwise counted hereunder, will be taken into account in determining his or her Year of Eligibility Service, provided that such Employee was employed by the Consumer Packaging Group of Greif, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the Consumer Packaging Group of Greif, Inc. by the Controlling Company.
7. Effective as of April 5, 2020, Subsection 1.101 of the Plan is amended by adding the following sentence to the end thereof:

An Employee's period of service with Quad/Graphics, Inc., to the extent not otherwise counted hereunder, will be taken into account in determining his or her Year of Eligibility Service, provided that such Employee was employed by the Omaha, Nebraska folding carton facility of Quad/Graphics, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the Omaha, Nebraska folding carton facility of Quad/Graphics, Inc. by the Controlling Company.
8. Effective as of January 1, 2021, Subsection 1.101 of the Plan is amended by adding the following sentence to the end thereof:

An Employee's period of service credited under the Artistic Carton Company Profit Sharing Plan with 401(k) Features, to the extent not otherwise counted hereunder, will be taken into account in determining his or her Year of Eligibility Service.
9. Effective as of April 1, 2020, Subsection 1.102(d) of the Plan is amended by adding the following sentence to the end thereof:

An Employee's periods of employment with Greif, Inc. will be taken into account in determining his or her Years of Vesting Service, provided that such Employee was employed by the Consumer Packaging Group of Greif, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the Consumer Packaging Group of Greif, Inc. by the Controlling Company.
10. Effective as of April 5, 2020, Subsection 1.102(d) of the Plan is amended by adding the following sentence to the end thereof:

An Employee's periods of employment with Quad/Graphics, Inc. will be taken into account in determining his or her Years of Vesting Service, provided that such Employee was employed by the Omaha, Nebraska folding carton facility of Quad/Graphics, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the Omaha, Nebraska folding carton facility of Quad/Graphics, Inc. by the Controlling Company.
11. Effective as of January 1, 2021, Subsection 1.102(d) of the Plan is amended by adding the following sentence to the end thereof:

An Employee's periods of employment credited under the Artistic Carton Company Profit Sharing Plan with 401(k) Features will be taken into account in determining his or her Years of Vesting Service.

12. Effective as of March 1, 2021, Section 8.1(b) of the Plan is amended to read as follows:

(b) Supplemental Employer Contribution, Match Direct - Graded (Pre-2008 Smurfit Match), Artistic Carton Employer and Artistic Carton Match Accounts. Except as provided in Sections 8.2, 8.3 and 8.4, the Supplemental Employer Contribution Account, Match Direct - Graded (Pre-2008 Smurfit Match) Account, Artistic Carton Employer Account and Artistic Carton Match Account of each Participant will vest in accordance with the following vesting schedule, based on the total of the Participant's Years of Vesting Service:

<u>Years of Vesting Service Completed by Participant</u>	<u>Vested Percentage of Participant's Account</u>
Less than 1 Year	0%
1 Year, but less than 2	20%
2 Years, but less than 3	40%
3 Years, but less than 4	60%
4 Years but less than 5	80%
5 Years or more	100%

13. Effective as of March 1, 2021, Section 9.5 of the Plan is amended by adding to the end thereof the following new subsections (23) and (24):

(23) Artistic Carton Match Account

(24) Artistic Carton Employer Account

14. Effective as of April 4, 2020, Article IX of the Plan is amended by adding to the end thereof the following new Section 9.13:

9.13 Coronavirus-Related Distributions.

(a) Availability of Withdrawal. Notwithstanding anything in the Plan to the contrary, effective from April 4, 2020, through December 30, 2020, a Qualified Participant may request a withdrawal of all or part of his vested Account as a coronavirus-related distribution, provided that the aggregate amount of withdrawals received by any Participant pursuant to this Section and similar coronavirus-related distribution provisions under all other plans maintained by the Controlling Company or any Affiliate may not exceed \$100,000.

(b) Qualified Participant Determination. For purposes of this Section, a "Qualified Participant" means a Participant (i) who is diagnosed with Coronavirus by a test approved by the U.S. Centers for Disease Control and Prevention (including a test authorized under the Federal Food, Drug and Cosmetic Act); (ii) whose spouse or dependent (as defined in Code Section 152) is diagnosed with Coronavirus by such a test; or (iii) who experiences adverse financial consequences as a result of:

(A) The Participant, his spouse or someone who shares the Participant's principal residence being quarantined, furloughed or laid off, or having work hours reduced, due to Coronavirus;

(B) The Participant, his spouse or someone who shares the Participant's principal residence being unable to work due to lack of child care, due to Coronavirus;

(C) The closing or reducing hours of a business owned or operated by the Participant, his spouse or someone who shares the Participant's principal residence, due to Coronavirus;

(D) The Participant, his spouse or someone who shares the Participant's principal residence having a reduction in pay or self-employment income, due to Coronavirus;

(E) The Participant, his spouse or someone who shares the Participant's principal residence having a job offer rescinded or start date of a job delayed, due to Coronavirus; or

(F) Other factors as determined by the U.S. Secretary of the Treasury (or his or her delegate).

The Retirement Committee will rely on a Participant's certification that the Participant satisfies the conditions to be a Qualified Participant unless the Retirement Committee has actual knowledge to the contrary. For purposes of this subsection (b), the term "Coronavirus" means the virus SARS-CoV-2 or coronavirus disease 2019 (COVID-19).

(c) Payment of Withdrawal. Notwithstanding anything in the Plan to the contrary, payment of a withdrawal under this Section will be made only as a single lump sum cash payment, and will not be considered an eligible rollover distribution.

BE IT FURTHER RESOLVED, that the Retirement Committee has approved this Eleventh Amendment to the GPI Savings Plan this 9th day of December, 2020.

GRAPHIC PACKAGING INTERNATIONAL, LLC
RETIREMENT COMMITTEE MEMBERS

By: /s/ Stephen R. Scherger
Stephen R. Scherger

By: /s/ Stacey Panayiotou
Stacey Panayiotou

By: /s/ Brad Ankerholz
Brad Ankerholz

By: /s/ Chuck Lischer
Chuck Lischer

By: /s/ Brian A. Wilson
Brian A. Wilson

**TWELFTH AMENDMENT TO THE
GPI SAVINGS PLAN
(As Amended and Restated Effective January 1, 2015)**

WHEREAS, Graphic Packaging International, LLC (the "Company") sponsors the GPI Savings Plan (the "Plan") for the benefit of its eligible employees; and

WHEREAS, Section 13.1 of the Plan authorizes the Board of Directors of Graphic Packaging Holding Company (the "Board") to amend the Plan at any time and to delegate such amendment authority to the Retirement Committee of Graphic Packaging International, LLC (the "Retirement Committee") or certain other designated persons; and

WHEREAS, the Board has delegated to the Retirement Committee the responsibility to make certain amendments to the Plan; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to provide that it shall constitute a "qualified replacement plan" under Section 4980(d)(2) of the Internal Revenue Code of 1986, as amended, with respect to the termination of the GPI US Consolidated Pension Plan (the "Pension Plan") and the transfer of all or any portion of the remaining Pension Plan assets to the Plan following such termination and the satisfaction of all remaining liabilities under the Pension Plan;

NOW, THEREFORE, BE IT RESOLVED, that the Plan be, and it hereby is, amended in the following respects:

1. Effective as of the date this Amendment is executed, Article XVI of the Plan is amended by adding the following to the end thereof as Section 16.12:

16.12 Qualified Replacement Plan. The Controlling Company may maintain this Plan as a qualified replacement plan as described in Code Section 4980 under which this Plan may receive a transfer of all or any portion of remaining assets ("transferred amounts") from the terminated GPI US Consolidated Pension Plan or from any other terminating qualified defined benefit plan that a Participating Company may maintain, prior to any employer reversion (within the meaning of Code section 4980) therefrom, as may be authorized by such Participating Company and the Controlling Company, subject to the following rules:

(a) The Retirement Committee will credit transferred amounts to a suspense account ("Suspense Account") under the Plan, and thereafter the Retirement Committee will allocate transferred amounts to fund all or a portion of any Supplemental Employer Contributions which are "nonelective contributions," within the meaning of Treasury Regulation Sections 1.401(k)-6 and 1.401(m)-5, due in accordance with the terms of the Plan (after the offset of any forfeitures). In no event shall the Suspense Account be applied to fund any "matching contributions," within the meaning of Treasury Regulation Section 1.401(k)-6, under the Plan or to pay or reimburse the Controlling Company for any administrative expenses under the Plan.

(b) Such allocation from the Suspense Account will be no less rapidly than ratably on a periodic basis over an allocation period of seven Plan Years beginning with the Plan Year of such transfer and ending on the last day of the sixth Plan Year after the Plan Year of such transfer ("Allocation Period").

(c) The minimum ratable drawdown of the Suspense Account over the Allocation Period will be measured by the Retirement Committee at periodic intervals (no less frequently than annually) designated by the Retirement Committee. The amount that will be allocated from the Suspense Account as such Supplemental Employer Contributions for each such interval (e.g., for each Plan Year) shall be no less than the amount determined by multiplying the amount in the Suspense Account as of the first day of such interval by a fraction, the numerator of which is one and the denominator of which is the number of such intervals remaining in the Allocation Period.

(d) Any income earned by the Suspense Account will be allocated at least as rapidly as ratably on the same periodic basis over the remainder of the Allocation Period under the same procedure.

(e) If any amount credited to the Suspense Account may not be allocated to a Participant before the end of the Allocation Period due to any limitation under Code Section 415, such amount shall be allocated to the Accounts of other Participants and, if any portion of such amount may not be so allocated to other Participants because of any such limitation, such portion shall be allocated to the Participant in accordance with Code Section 415.

(f) Amounts allocated from the Suspense Account attributable to such transfer and any income earned thereon shall be treated as employer contributions for purposes of Code Sections 401 and 415.

(g) If any transferred amounts credited to the Suspense Account are not allocated prior to the termination date of this Plan:

(1) such transferred amounts shall be allocated to the Accounts of Participants as of such date, except that any portion of such transferred amounts which may not be allocated due to Code Section 415 limitations shall be allocated to the Accounts of other Participants, and

(2) if any portion of such transferred amounts may not be allocated to other Participants in accordance with clause (1) by reason of such limitation, such portion shall be treated as a Controlling Company reversion to which Code Section 4980 applies.

BE IT FURTHER RESOLVED, that the Retirement Committee has approved this Twelfth Amendment to the GPI Savings Plan this 17th day of December 2020.

GRAPHIC PACKAGING INTERNATIONAL, LLC RETIREMENT COMMITTEE MEMBERS

By: /s/ Stephen R. Scherger
Stephen R. Scherger

By: /s/ Stacey Panayiotou
Stacey Panayiotou

By: /s/ Brad Ankerholz
Brad Ankerholz

By: /s/ Chuck Lischer
Chuck Lischer

Brian A. Wilson
By: /s/ Brian A. Wilson

**THIRTEENTH AMENDMENT TO THE
GPI SAVINGS PLAN**

(As Amended and Restated Effective January 1, 2015)

WHEREAS, Graphic Packaging International, LLC (the “Company”) maintains for the benefit of its employees the GPI Savings Plan (the “Plan”); and

WHEREAS, Section 13.1 of the Plan authorizes the Board of Directors of Graphic Packaging Holding Company (the “Board”) to amend the Plan at any time; and

WHEREAS, the Board has delegated to the Retirement Committee of Graphic Packaging International, LLC (the “Retirement Committee”) the responsibility to make certain amendments to the Plan; and

WHEREAS, the Company has acquired substantially all of the assets of Artistic Carton Company and assumed sponsorship of the Artistic Carton Company Profit Sharing Plan with 401(k) Features (the “Artistic Carton Plan”); and

WHEREAS, the Retirement Committee previously amended the Plan to merge the Artistic Carton Plan into the Plan effective as of March 1, 2021; and

WHEREAS, the Retirement Committee desires to amend the Plan to provide that the merger of the Artistic Carton Plan into the Plan will instead be effective as of June 1, 2021;

NOW, THEREFORE, BE IT RESOLVED, that the Plan is hereby amended as follows:

1. Effective as of June 1, 2021, the Artistic Carton Company Profit Sharing Plan with 401(k) Features be and hereby is merged into the Plan.
2. Items 1, 2, 3, 4, 5, 12 and 13 of the Eleventh Amendment to the GPI Savings Plan be and hereby are amended to be effective as of June 1, 2021, instead of March 1, 2021.

BE IT FURTHER RESOLVED, that the Retirement Committee has approved this Eleventh Amendment to the GPI Savings Plan this 25th day of March, 2021.

GRAPHIC PACKAGING INTERNATIONAL, LLC
RETIREMENT COMMITTEE MEMBERS

By: /s/ Stephen R. Scherger
Stephen R. Scherger

By: /s/ Stacey Panayiotou
Stacey Panayiotou

By: /s/ Brad Ankerholz
Brad Ankerholz

By: /s/ Chuck Lischer
Chuck Lischer

**FOURTEENTH AMENDMENT TO THE
GPI SAVINGS PLAN
(As Amended and Restated Effective January 1, 2015)**

WHEREAS, Graphic Packaging International, LLC (the “Company”) maintains for the benefit of its employees the GPI Savings Plan (the “Plan”); and

WHEREAS, Section 13.1 of the Plan authorizes the Board of Directors of Graphic Packaging Holding Company (the “Board”) to amend the Plan at any time; and

WHEREAS, the Board has delegated to the Retirement Committee of Graphic Packaging International, LLC (the “Retirement Committee”) the responsibility to make certain amendments to the Plan; and

WHEREAS, the Company has acquired the assets (the “Transaction”) of Americraft Carton, Inc. (the “Target”); and

WHEREAS, in connection with the Transaction, employees of the Target became employees of the Company effective as of July 1, 2021; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to recognize employees’ service with the Target for purposes of the Plan.

NOW, THEREFORE, BE IT RESOLVED, that, effective as of July 1, 2021, the Plan is hereby amended as follows:

1. Subsection 1.101 of the Plan is amended by adding the following sentence to the end thereof:

An Employee’s period of service with Americraft Carton, Inc., to the extent not otherwise counted hereunder, will be taken into account in determining his Year of Eligibility Service, provided that such Employee was employed by Americraft Carton, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the assets of Americraft Carton, Inc. by the Controlling Company.

2. Subsection 1.102(d) of the Plan is amended by adding the following sentence to the end thereof:

An Employee’s periods of employment with Americraft Carton, Inc. will be taken into account in determining his Years of Vesting Service, provided that such Employee was employed by Americraft Carton, Inc. as of the close of business on the date immediately preceding the closing date of the acquisition of the assets of Americraft Carton, Inc. by the Controlling Company.

BE IT FURTHER RESOLVED, that the Retirement Committee has approved this Fourteenth Amendment to the GPI Savings Plan this 10th day of November, 2021.

GRAPHIC PACKAGING INTERNATIONAL, LLC RETIREMENT COMMITTEE MEMBERS

By: /s/ Stephen R. Scherger
Stephen R. Scherger

By: /s/ Brad Ankerholz
Brad Ankerholz

By: /s/ Chuck Lischer
Chuck Lischer

**FIFTEENTH AMENDMENT TO THE
GPI SAVINGS PLAN
(As Amended and Restated Effective January 1, 2015)**

WHEREAS, Graphic Packaging International, LLC (the “Company”) maintains for the benefit of its employees the GPI Savings Plan (the “Plan”); and

WHEREAS, Section 13.1 of the Plan authorizes the Board of Directors of Graphic Packaging Holding Company (the “Board”) to amend the Plan at any time; and

WHEREAS, the Board has delegated to the Retirement Committee of Graphic Packaging International, LLC (the “Retirement Committee”) the responsibility to make certain amendments to the Plan; and

WHEREAS, the Retirement Committee deems it desirable to amend the Plan to update the rules governing hardship distributions to reflect the provisions of the Bipartisan Budget Act of 2018 and final regulations issued by the Internal Revenue Service; and

WHEREAS, in accordance with the Self-Correction Program (SCP) set out in Revenue Procedure 2021-30, the Retirement Committee deems it desirable to retroactively amend the Plan to provide that matching contributions that do not satisfy the safe harbor requirements of Section 401(m)(11)(B) of the Internal Revenue Code of 1986, as amended (the “Code”), will be subject to the Actual Contribution Percentage (ACP) test set out in Code Section 401(m)(2).

NOW, THEREFORE, BE IT RESOLVED, that the Plan is hereby amended as follows:

1. Effective as of January 1, 2018, Article I of the Plan is amended by adding the following new Sections 1.1A and 1.1B immediately following Section 1.1 thereof:

1.1A ACP or Actual Contribution Percentage means the percentage described in Section 6.3(b).

1.1B ACP Tests means the nondiscrimination tests described in Section 6.3.

2. Effective as of January 1, 2018, Section 6.3 of the Plan is amended to read as follows:

6.3 Nondiscrimination Requirements for Matching Contributions.

(a) ACP Tests. The allocation of the aggregate of all (i) after-tax, (ii) Matching Contributions, (iii) to the extent designated by the Retirement Committee pursuant to subsection (c) hereof, Before-Tax Contributions, and (iv) to the extent designated by the Retirement Committee pursuant to subsection (d) hereof, other before-tax and/or qualified nonelective contributions made under another plan will satisfy at least one of the following ACP Tests for such Plan Year:

(1) The ACP of the Active Participants who are Highly Compensated Employees during the current Plan Year will not exceed the product of (i) the ACP for the current Plan Year of the Active Participants

who are not Highly Compensated Employees during the current Plan Year, multiplied by (ii) 1.25; or

(2) The ACP of the Active Participants who are Highly Compensated Employees during the current Plan Year will not exceed the ACP for the current Plan Year of the Active Participants who are not Highly Compensated Employees during the current Plan Year by more than 2 percentage points, nor will it exceed the product of (i) the ACP for the current Plan Year of the Active Participants who are not Highly Compensated Employees during the current Plan Year, multiplied by (ii) 2.

(b) ACP or Actual Contribution Percentage. The term “ACP” or “Actual Contribution Percentage” means, with respect to a specified group of Participants for a Plan Year, the average of the ratios (calculated separately for each Participant in such group) of (i) the total of the amount of Matching Contributions and, to the extent designated by the Retirement Committee, the Before-Tax, as well as other before-tax and/or qualified nonelective contributions (excluding Catch-Up Contributions, and any Contributions returned to a Participant or otherwise removed from his Account to correct excess Annual Additions) actually paid to the Trustee on behalf of each such Participant for a specified Plan Year, to (ii) such Participant’s Compensation for such specified Plan Year. Matching Contributions will be taken into account in determining a Participant’s ACP only to the extent that such Matching Contributions satisfy the requirements of Treasury Regulation Section 1.401(m)-2(a)(5). If a Highly Compensated Employee participates in the Plan and one or more other plans of any Affiliates to which matching or after-tax contributions are made (other than a plan for which aggregation with the Plan is not permitted), the matching and after-tax contributions made with respect to such Highly Compensated Employee will be aggregated for purposes of determining his ACP in accordance with Treasury Regulation Section 1.401(m)-2(a)(3)(ii). The ACP will be rounded to the nearest 1/100th of a percent and will be calculated in a manner consistent with the terms of Code Section 401(m) and the regulations thereunder. If a Participant is eligible to participate in the Plan for all or a portion of a Plan Year by reason of satisfying the eligibility requirements of Article II but makes no Before-Tax Contributions which are taken into account (as described above) for purposes of calculating his ACP, and if he receives no allocations of Matching Contributions or qualified nonelective contributions which are taken into account (as described above) for purposes of calculating his ACP, such Participant’s ACP for such Plan Year will be zero.

(c) Adjustments to Actual Contribution Percentages. In the event that the allocation of the Before-Tax, Matching and other after-tax, before-tax and qualified nonelective contributions for a Plan Year does not satisfy one of the ACP Tests of subsection (a) hereof, by the last day of the Plan Year following the Plan Year in which the annual allocation failed both of the ACP Tests, the Retirement Committee will direct the Trustee to reduce Matching Contributions taken into account with respect to Highly Compensated Employees under such failed ACP Tests by the dollar amount necessary to satisfy one of the ACP Tests. The amount by which Matching Contributions will be reduced will be determined by hypothetically reducing contributions made on behalf of Highly Compensated Employees in order of individual Actual Contribution Percentages, beginning with the highest Actual Contribution Percentage. Notwithstanding the method of determining the total dollar amount of such reductions, actual reductions in

Matching Contributions will be made in accordance with, and solely from the Accounts of those Highly Compensated Employees who are affected by, the following procedure:

(1) First, the Matching Contributions of the Highly Compensated Employee(s) with the highest dollar amount of Matching Contributions for such Plan Year will be reduced by the lesser of (i) the entire amount of required reductions determined as described above, or (ii) that part of such amount as will cause the dollar amount of After-Tax and Matching Contributions of each such Highly Compensated Employee to equal the amount of Matching Contributions of each of the Highly Compensated Employees with the next highest dollar amount of Matching Contributions for such Plan Year.

(2) Substantially identical steps will be followed for making further reductions in the Matching Contributions of each of the Highly Compensated Employees with the next highest dollar amount of Matching Contributions for such Plan Year until the entire required reduction has been made.

(3) The amount by which Matching Contributions are to be reduced, plus any earnings attributable thereto through the last day of such Plan Year, will be forfeited; provided, if the Matching Contributions to be reduced are vested and therefore may not be forfeited, those Matching Contributions, plus any earnings attributable thereto (excluding any gap income or loss) will be distributed to the Highly Compensated Employees from whose Matching Accounts such reductions have been made.

(d) Multiple Plans. If matching, after-tax, before-tax and/or qualified nonelective contributions are made to one or more other plans which, along with the Plan, are considered as a single plan for purposes of Code Section 401(a)(4) or Code Section 410(b), such plans will be treated as one plan for purposes of this Section, and the matching, after-tax, applicable before-tax contributions (other than catch-up contributions) and qualified nonelective contributions made to those other plans will be combined with the Matching and applicable Before Tax Contributions for purposes of performing the tests described in subsection (a) hereof. In addition, the Retirement Committee may elect to treat the Plan as a single plan along with one or more other plans to which matching, after-tax, applicable before-tax and/or qualified nonelective contributions are made for purposes of this Section; provided, the Plan and all of such other plans also must be treated as a single plan for purposes of satisfying the requirements of Code Sections 401(a)(4) and 410(b) [other than the requirements of Code Section 410(b)(2)(A)(ii)]. However, plans may be aggregated for purposes of this subsection (d) only if they have the same plan year and use the same testing method for the ACP Tests.

(e) Separate Testing. In accordance with Treasury Regulation Section 1.401(m)-1(b)(4)(iv), the Plan may be permissively or mandatorily disaggregated into two or more plans for purposes of performing the tests described in subsection (a) hereof. In addition, pursuant to Code Section 401(m)(5)(C), the Retirement Committee may elect to exclude from the ACP Tests all Active Participants who are not Highly Compensated Employees and

who have not satisfied the age and service requirements of Code Section 410(a)(1)(A).

(f) Interpretation. The requirements of this Section will be interpreted and applied in a manner consistent with applicable Treasury Regulations. To the extent permitted under such Treasury Regulations, the Retirement Committee may elect to use any optional or alternative methods of applying the limitations of this Section.

3. Effective as of January 1, 2019, Section 9.1 of the Plan is amended to read as follows:

9.1 Hardship Withdrawals.

(a) Parameters of Hardship Withdrawals. Subject to the provisions of Section 9.11, a Participant may make, on account of hardship, a withdrawal from such subaccounts (and in the order of priority) identified below.

(1) After-Tax Post-2001 Account

(2) Graphic Employer Account

(3) Before-Tax Account (excluding the portion that relates to catch-up contributions and investment earnings thereon and, for withdrawals made before January 1, 2019, any investment earnings earned after December 31, 1988)

(4) Before-Tax Account (the portion that relates to catch-up contributions and, for withdrawals made on or after January 1, 2019, investment earnings thereon)

(5) Salaried Smurfit DB Replacement Account

(6) Salaried Field Profit-Sharing Account

(7) Roth Account (other than the portion that relates to catch-up contributions)

(8) Roth Account (the portion that relates to catch-up contributions)

For purposes of this subsection (a), a withdrawal will be on account of "hardship" if it is necessary to satisfy an immediate and heavy financial need of the Participant. A withdrawal based on financial hardship cannot exceed the amount necessary to meet the immediate financial need created by the hardship and not reasonably available from other resources of the Participant. The Retirement Committee will make its determination as to whether a Participant has suffered an immediate and heavy financial need and whether it is necessary to use a hardship withdrawal from the Plan to satisfy that need on the basis of all relevant facts and circumstances.

(b) Immediate and Heavy Financial Need. For purposes of the Plan, an immediate and heavy financial need exists only if the withdrawal is on account of (i) expenses for medical care described in Code Section 213(d)

(determined without regard to whether the expenses exceed 7.5 percent of adjusted gross income) for the Participant, his Spouse, or dependents (as defined in Code Section 152 without regard to subsections (b)(1), (b)(2) and (d)(1)(B) thereof); (ii) the purchase (excluding mortgage payments) of a principal residence for the Participant; (iii) the payment of tuition, related educational fees, and room and board expenses for the next 12 months of post-secondary education for the Participant, his Spouse, or dependents (as defined in Code Section 152 without regard to subsections (b)(1), (b)(2) and (d)(1)(B) thereof); (iv) the need to prevent eviction of the Participant from his principal residence or foreclosure on the mortgage of the Participant's principal residence; (v) the payment of burial or funeral expenses for the Participant's deceased parent, Spouse, children, or dependents (as defined in Code Section 152 without regard to subsection (d)(1)(B) thereof); or (vi) expenses for the repair of damage to the Participant's principal residence that would qualify for the casualty deduction under Code Section 165 (determined without regard to Code Section 165(h)(5) and whether the loss exceeds 10 percent of adjusted gross income).

(c) Necessary to Satisfy a Financial Need.

(1) Withdrawals Made Before January 1, 2019. A withdrawal made before January 1, 2019, will be considered as necessary to satisfy an immediate and heavy financial need of a Participant because (i) the Participant is required to obtain all distributions [including distributions of employee stock ownership plan dividends under Code Section 404(k)], other than hardship withdrawals, and all nontaxable loans under all plans maintained by the Controlling Company and its Affiliates; (ii) the Participant is prohibited, under the terms of all plans maintained by the Controlling Company and its Affiliates or an otherwise legally enforceable agreement, from making before-tax contributions and after-tax contributions to such plans for a 6-month period following the hardship withdrawal; and (iii) the withdrawal will not exceed the amount of the Participant's immediate and heavy financial need. Any suspension from making before-tax contributions and after-tax contributions that were in effect on January 1, 2019, were lifted on that date. The amount of an immediate and heavy financial need may include amounts necessary for the Participant to pay any federal, state or local taxes which are reasonably anticipated to result from the hardship withdrawal.

(2) Withdrawals Made On or After January 1, 2019. A withdrawal made on or after January 1, 2019, is not treated as necessary to satisfy an immediate and heavy financial need of a Participant unless the Participant has obtained all other currently available distributions (including distributions of ESOP dividends under Code Section 404(k), but not loans or hardship withdrawals) under the Plan and all other plans of deferred compensation, whether qualified or nonqualified, maintained by an Affiliate. In addition, for withdrawals made on or after January 1, 2020, the Participant must represent (in writing, by an electronic medium, or in such other form as may be prescribed by the Internal Revenue Service) that he has insufficient cash or other liquid assets to satisfy the need. The Retirement Committee may rely on the Participant's representation unless the Retirement Committee has actual knowledge to the contrary.

[signatures on following page]

BE IT FURTHER RESOLVED, that the Retirement Committee has approved this Fifteenth Amendment to the GPI Savings Plan this 14th day of December, 2021.

GRAPHIC PACKAGING INTERNATIONAL, LLC RETIREMENT COMMITTEE MEMBERS

By: /s/ Stephen R. Scherger
Stephen R. Scherger

By: /s/ Brad Ankerholz
Brad Ankerholz

By: /s/ Charles D. Lischer
Charles D. Lischer

The Core of Our Success
Graphic Packaging Code of Conduct

CEO's Message

The greatest asset any company has is its people. Whether you work in a paper mill, converting plant, corporate or virtual office, warehouse, distribution facility, or sales office, you are the face of Graphic Packaging. Every decision you make and every action you take defines who we are as an organization. This Code of Conduct is designed to guide you to make the right decisions. The Code is your individual responsibility, and we also expect our business partners to uphold Graphic Packaging's high standards.

The Code defines acceptable and unacceptable behavior, along with the actions you should take to uphold it. Since the Code is based on our Core Values, which should be familiar to you as a Graphic Packaging employee, you are likely already following it in your daily routines.

The Code cannot cover every ethical situation that arises. We count on you to use good judgment and to proceed based on the information you have. You may think your everyday actions do not mean that much, but they do. Getting to your job on time, reporting misbehavior or conflicts of interest, telling a coworker the right thing to do, giving your best every day – all of these actions express commitment to our Core Values.

In doubt? Find out! Know the Code, and if you face an uncertain situation, reach out to the appropriate people in the Company to help you make the best decision. Let's do this together. It's the key to long-term success for each of us.

Thank you for your cooperation and for everything you do to make Graphic Packaging an admirable place to work.

Michael P. Doss
President and Chief Executive Officer
Graphic Packaging Holding Company

Our Core Values

Core Values are the cornerstone of our culture and guide us as we work together in achieving success.

INTEGRITY

Integrity means honesty, leading by example. Keeping promises, meeting commitments, and taking pride in what we do.

RESPECT

Each person's unique skills and abilities are valued. We actively solicit each other's ideas and honor diverse opinions. Everyone's contributions are appreciated, and accomplishments are always recognized.

ACCOUNTABILITY

Each individual is personally responsible for doing their job to the best of their abilities and delivering on results. We never quit in meeting our commitments to shareholders, customers, and employees.

RELATIONSHIPS

We have an unwavering commitment to listen to and meet the needs of our customers and create innovative solutions that result in shared prosperity.

TEAMWORK

The strongest teams share common goals and work together to achieve them. We encourage everyone's involvement and support each other's ideas. Team members help others without being asked.

Table of Contents

INTRODUCTION

- Purpose of Our Code
- Together We Follow the Code
- We Follow the Law
- Speaking Up About Misconduct
 - Investigations
 - Non-retaliation Policy
- Responsibilities of Managers
- Waivers

WE ACT WITH INTEGRITY

- Maintaining Accurate Records
- Insider Trading
 - Material, Nonpublic Information
- Anti-bribery
- Anti-money Laundering

WE RESPECT EACH OTHER

- Playing It Safe at Work
 - Drugs and Alcohol
 - Workplace Violence
- Celebrating Workplace Diversity
 - Equal Employment Opportunity
 - Anti-harassment
- Volunteering
- Sustaining the Planet

WE ARE PERSONALLY ACCOUNTABLE

- Protecting Your Privacy
- Protecting Confidential Information
- Safeguarding Company Assets
 - Physical Property
 - Information Technology
 - Work Product
- Political Contributions
- Theft of Company Property

WE BUILD POSITIVE RELATIONSHIPS AND WE WORK TOGETHER AS A TEAM

- Working With Customers and Suppliers
- Imports/Exports and Anti-boycott
- Antitrust and Competition
- Distributing Literature
- Conflicts of Interest
 - Recognizing Conflicts
 - Disclosure
- Honoring Human and Workplace Rights
- Ensuring Product Quality and Safety
- Communicating About Graphic Packaging

CERTIFICATION OF UNDERSTANDING**RESOURCES
POLICY LINKS**

INTRODUCTION

Welcome to the Graphic Packaging Code of Conduct. It reflects our Core Values and is our guide to ethical conduct and behavior consistent with our culture, wherever we do business.

Purpose of Our Code

Our Code of Conduct outlines the principles, policies, and laws that guide our actions on the job. The Code applies to every employee, officer, and director of the Company and its subsidiaries. It shows us how to be responsible for ourselves and for each other. This makes us a stronger company and better able to deliver on our promises.

The Code also protects our personal integrity and safety at all times, because it gives us a way to respond to unethical actions. Report any activity or behavior that is illegal, unethical, or does not comply with our Code to your manager, Human Resources Representative, a Senior or Executive Vice President, Internal Audit, or the General Counsel. You may also report any concerns to the Alertline. To report a concern online, you may visit the following website, apibusinessconductALERTline.ethicspoint.com, or dial the toll-free number for your country listed on the Resources page in the back of this booklet. We expect your adherence to the Code.

Together We Follow the Code

Our Code of Conduct applies to every employee, officer, and director of Graphic Packaging and our subsidiaries worldwide. We expect you to follow it and to insist others follow it as well. In this way, the Code helps us work as a team. Our Code clarifies how you should:

- Act in accordance with the law and our policies
- Behave in a way that reflects positively on the Company
- Avoid any circumstance that may create a conflict, or appear to be a conflict, between your personal interests and those of the Company
- Speak up about ethical concerns with a manager, Human Resources Representative, our Law Department or through the Alertline, without fear of retaliation or negative consequences

The Code cannot cover every situation that might arise. If you need help interpreting a policy or applying our Code, ask your manager, Human Resources Representative, a Senior or Executive Vice President, Internal Audit, or our Law Department.

We Follow the Law

We comply with all applicable laws. In some instances, the Company's policies may be stricter than the applicable law. In such cases, the Company's policies shall prevail. Any time laws, local business practices, or customs conflict with our Code, seek guidance from your supervisor or our Law Department.

Speaking Up About Misconduct

If you see, know, or hear about any potential violations of our Code, inappropriate or unsafe conduct, or behavior that is illegal, let us know. Even if you only suspect unethical behavior, we count on you to speak up. Talk to your manager, or Human Resources Representative, our Law Department, or Internal Audit, or our Alertline.

Investigations

We have procedures in place to promptly investigate every report, including those made anonymously. As we gather information, you are expected to cooperate in any investigations. We will keep any information you share as confidential as possible. Our Code is not meant to lay blame or unfairly accuse people. It is here to ensure we maintain our corporate integrity at all times. We expect all employees, managers, supervisors, and senior executives who know of illegal or unethical conduct or the appearance of illegal or unethical conduct to take corrective action and report it.

Anyone found in violation of our Code or who is dishonest during an investigation is subject to disciplinary action up to and including termination and/or legal action. We fully cooperate with law enforcement in cases involving theft, fraud, or other illegal activity.

Non-retaliation Policy

We do not tolerate retaliation against anyone who makes a good faith report. Good faith means that you are being truthful and fair. No one will prevent you from making a report, and you will not be disciplined or penalized in any way just for making a report. We honor you for standing up for what is right.

If you are the target of retaliation, report it to your manager, Human Resources Representative, or the Alertline. Any employee who retaliates against someone will be disciplined, up to and including dismissal.

Making a good faith report means you honestly believe that an action is inappropriate, illegal, or violates our Code.

Making Good Decisions

Q. There is someone in the Company who routinely violates our Code, and everyone knows it – even my boss. If no one is saying anything, I shouldn't either, right?

A. Wrong. You have a responsibility to speak up when you see or suspect a violation.

Responsibilities of Managers

When you manage others, you have unique responsibilities. You are a leader, and others look to you as a role model. We expect you to set a good example by demonstrating our Core Values in word and deed every day by:

- Upholding the highest standards of professional conduct
- Acting in the best interests of the Company as a whole
- Making workplace safety and health a priority
- Promoting a sense of pride in the work of every employee
- Helping employees achieve their full potential at work
- Ensuring employees accurately and honestly record their work hours
- Encouraging employees to follow the Code and report violations without fear of reprisal

We look to you to create an atmosphere where employees enjoy coming to work, are safe and productive, and know they are appreciated. Make sure your door is always open to hear concerns and carefully consider any suggestions you are given for improvements in how we do business. Managers are required to promptly report any and all inappropriate or illegal conduct or Code violations to Human Resources, Internal Audit or the Law Department.

Making Good Decisions

Q. A rumor is going around about a manager who is stealing money from the Company. I don't know the manager, but I have heard his name mentioned. If I report it and the rumor is false, will I get in trouble?

A. No. A report that you make honestly is considered in good faith. Since this is a potentially serious matter, you are right to speak up.

Waivers

We realize that the Code will not cover every possible circumstance, so our Company may modify the Code, as necessary. Any waivers or exceptions of the Code for any Executive Officer or Director can only be made by the Board of Directors. In the rare situation that a waiver is approved, we will quickly and properly disclose it where required by law.

We cannot list every possible unethical situation you may encounter on the job. Use your best judgment.

Know Our Policies

[Policy Handbook](#)

Resources

Speak up

WE ACT WITH INTEGRITY

Integrity means honesty, leading by example. Keeping promises, meeting commitments, and taking pride in what we do.

Maintaining Accurate Records

We are a public company subject to certain reporting and documentation requirements. Guided by our stringent internal accounting controls, we record all payments, fund transfers, assets, and financial activities completely, honestly, and accurately. We safeguard all books, records, accounts, and financial statements and store and retain them in accordance with our policies and the law.

In general. You are required to do the following if your duties involve accounting procedures:

- Obtain proper authorization for completing certain transactions
- Report and correct errors, immediately
- Refrain from maintaining "off the books" funds or assets unless permitted by law
- Maintain, store, and dispose of records according to applicable data retention policies

- Respond to internal inquiries about our financial records, promptly

Our Company must follow strict guidelines regarding public communications and reporting of financial information.

Making Good Decisions

Q. Can I use my Company credit card for personal expenses as long as I report it and reimburse the Company later?

A. No. This is an unauthorized use and violates our strict accounting controls.

Insider Trading

All employees and directors of the Company must abide by applicable insider trading laws. In addition, any purchase or sale of Company stock, bonds, or other securities must comply with our policy.

Material, Nonpublic Information

As an employee, you may have access to material, nonpublic (or “inside”) information about our Company, such as information about:

- New product introductions
- Sales transactions
- Product developments
- Impending litigation
- Stock splits
- Mergers or acquisitions
- Leadership changes
- Financial results and forecasts

Never use material, nonpublic information as the basis of a trade in Company securities, or those of our suppliers, business partners, or customers. It is against the law to buy or sell securities of any type based on such information and is called “insider trading.” It is also against the law to use such information to influence others to buy or sell securities. This is called “tipping.” If you think material, nonpublic information is being used improperly or in violation of our policy or the law, report it.

As a Graphic Packaging employee, we may ask you to provide information at times to help us file certain documents as required by law. You have a responsibility to cooperate with such requests and to respond with accurate information.

Making Good Decisions

Q. I just heard that we are negotiating the purchase of one of our competitors, which could increase our market share. Can I buy GPI stock now so that I can realize a gain when this transaction becomes public?

A. No. This is considered material, nonpublic information. If you buy stock or tell someone else to purchase stock based on this information, you would be breaking insider trading laws. Keep the news to yourself, and do not trade in GPI stock until it is publicized.

Know Our Policies

[Policy on Trading in Securities](#)

Anti-bribery

We prohibit bribery in any form. A bribe is an offer of a gift, service, or money made to retain business or obtain an improper advantage. Most countries in which we do business have anti-bribery laws in place. Do not offer payments, promises, or anything of value, directly or indirectly, to any individual, company, organization, or government agency as an inducement to do business with us. Do not solicit or accept bribes or allow others to bribe on our behalf.

Making Good Decisions

Q. A sales representative promised to give me a portion of his commission if GPI signs a contract to purchase supplies from his company. What should I do?

A. This is a bribe. Refuse to do business with that supplier.

Know Our Policies

[Anti-bribery and Anti-corruption Policy](#)

Anti-money Laundering

We do not tolerate money laundering. Money laundering is an effort to make it appear that money derived from an illegal activity is from a legal source. Masking a source of funds obtained unlawfully is a criminal act. Make sure customers are reliable and transactions are conducted with legitimate sources of funds. Be on the lookout for suspicious or irregular banking activities, such as payments coming from an unknown third party on a customer's behalf.

WE RESPECT EACH OTHER

Each person's unique skills and abilities are valued. We actively solicit each other's ideas and honor diverse opinions. Everyone's contributions are appreciated, and accomplishments are always recognized.

Playing It Safe at Work

Workplace safety is a top priority for us. Our employees are our greatest assets and should be protected. We have an excellent safety record because we comply with applicable health, safety, and environmental protection laws. A safe and healthy workplace helps reduce injuries and illness and increases productivity.

Health and safety. Follow safe handling and operating procedures when using equipment and materials required for your job. If you observe an unsafe condition, potential hazard, or dangerous practice, address it with your coworker or supervisor, as applicable, or, if you are not comfortable doing so, report it to your local health, safety, and environmental representative or the Company's Alertline. This includes safety issues concerning our suppliers, customers, and business partners, too.

Safety absolutes. Keep fully informed of current safety requirements and comply with them. Observe our zero-tolerance policy for the following "safety absolutes":

- Neglecting to lockout equipment in violation of lockout/tagout procedures
- Neglecting to follow fall protection procedures
- Neglecting to follow confined space permit procedures when entering a defined confined space
- Bypassing, removing, or disabling a safety device
- Reaching into moving equipment in violation of safe operating procedures
- Operating a powered industrial vehicle in a reckless or threatening manner
- Placing yourself or another employee in serious danger

Know Our Policies

[Health and Safety Policy](#)

Making Good Decisions

Q. The other day, the tail of a carton jammed my machine. I was able to pull it out quickly without having to stop the machine or use the lockout/tagout procedures. No one saw me, and I was not injured. If no one mentions it, everything is okay, isn't it?

A. No! Your safety and that of your coworkers is our primary concern. Under no circumstances should you reach into a moving machine in violation of lockout/tagout and other safety policies. Doing so violates the safety absolutes, even if no injury occurs, and may result in discipline, up to and including termination. If you see anyone bypassing a guard or lockout/tagout procedures to reach into a machine, you must immediately report it to a supervisor or manager.

Drugs and Alcohol

The misuse and abuse of drugs and alcohol can impair judgment, create health risks, and endanger yourself and others. While at work or conducting Company business, do not use, sell, or distribute illegal substances. You must:

- Use prescription medications responsibly and report any usage of prescriptions that may impair your ability to perform your job duties to your supervisor
- Comply with all laws that apply to alcohol and drug use
- Consume alcohol in moderation when served at Company events

If you or a coworker has a drug or alcohol problem, report it. Treatment may be available through our Employee Assistance Program and other applicable local programs. Please consult your local Human Resources Representative for more information.

Making Good Decisions

Q. My manager just went through a divorce, and it hit him hard. Sometimes he comes to work late and seems to slur his words and forgets things that I tell him. I think he may be developing a drinking problem and could even be coming to work under the influence. Should I just wait and see if he gets over this?

A. No! You are right to be concerned. Consuming alcohol in excess, even while not at work, may interfere with job performance and could lead to other harmful consequences. Speak up and report this behavior to someone of higher managerial authority or through the Company's Alertline .

Workplace Violence

Our words and actions should not present a danger to anyone. We strictly prohibit workplace violence, threats, and other behaviors that disrupt the workplace or put employees at risk. Such behaviors include:

- ☐ Physical acts of violence against a person or their property
- ☐ Verbal or written threats, vicious statements, or hostile or threatening images
- ☐ Possession of a firearm or other weapon in violation of our policies
- ☐ Jokes or comments about violent events

Firearm possession. Except as otherwise provided by relevant, applicable law, we prohibit firearms, ammunition, explosives, weapons, and dangerous instrumentalities of any kind (with the exception of Company-issued tools, such as safety knives) on property that is leased, controlled, or owned by the Company (including in working areas, in buildings, or on an employee's person while he or she is performing work), and in Company vehicles at any time. You may be subject to a search of personal belongings and a criminal background check to the extent allowed by applicable law.

Know Our Policies

[Workplace Violence Policy](#)

Celebrating Workplace Diversity

One of the values that is core to our very existence is respect, not only for our fellow workers, but for everyone we encounter. We honor diverse opinions and treat each other with dignity – regardless of position, skin color, location, or personal beliefs. We work together to improve our culture by demonstrating an understanding and appreciation for the diversity and differences that make Graphic Packaging a great place to work. We are all accountable for creating a working environment where everyone feels safe, included, and valued; and we do not tolerate behavior that is inconsistent with our policies prohibiting discrimination and harassment.

Equal Employment Opportunity

Our hiring, training, compensation, and other employment practices are free from discrimination. We do not make employment decisions based on race, color, religion, age, gender or sex (including pregnancy), national origin, ancestry, marital status, sexual orientation, gender identity, disability, veteran/military status, genetic information, or any characteristic protected by law. We make every effort to provide reasonable accommodations for those with disabilities, and we do not tolerate human trafficking or modern slavery in our business or our supply chain.

Anti-harassment

We want to ensure that everyone feels safe and respected at work. That is why we have a zero-tolerance policy for workplace harassment. It violates our Core Values, our Code, and may be unlawful. We do not allow bullying, intimidation, or any conduct that may be considered or lead to harassment or creates a hostile work environment for anyone. This applies to job applicants, employees, suppliers, contractors, visitors, and business partners. Harassment can take many forms, for instance:

- ☐ Sexual harassment, such as:
 - Sexual advances or requests for sexual favors
 - Unwanted touching
 - Lewd jokes
 - Displaying sexually explicit objects or images
 - Continuing to make sexual advances after being told “no”
- ☐ Bullying, such as verbal threats, epithets, profanity, or slurs
- ☐ Hostile or threatening communications toward an individual or group
- ☐ Derogatory images, photos, drawings, posters, or gestures
- ☐ Retaliation or threats of retaliation for reporting incidents of harassment

How to stay alert for sexual harassment:

Keep in mind that sexual harassment comes in many forms, including:

- Quid pro quo requests, suggestions, or arrangements
- Any sexual conduct or communication considered unwelcome or offensive

Further, like all forms of harassment, it:

- Can happen between members of the same or opposite sex
- Can be verbal or non-verbal, physical, or visual

- Can take place via email, via text, or on social media
- Can happen between suppliers, customers, or employees

Can happen at work or at work-related events

To do your part, make sure you are treating everyone with dignity and respect and keeping in mind that it is the impact of your actions that matters. In other words, saying “That’s not what I meant” will not make bad behavior okay.

Also, get involved. If you see or experience disrespectful or inappropriate behavior, do not ignore it. If it feels safe to do so, tell the person to stop. However, if you are uncomfortable approaching the person directly, talk to your manager, Human Resources Representative, Regional Human Resources Director or the Executive Vice President, Human Resources right away.

Q. A couple of my coworkers tell crude jokes during the day. It’s all in good fun, and it doesn’t bother me; but I wonder if it bothers anyone else. What should I do?

A. Let your coworkers know their behavior is inappropriate at work. You can also refer them to our Code and any local policies prohibiting harassment. If their behavior continues, report the conduct to your manager, Human Resources Representative, or the [Executive Vice President, Human Resources](#).

Q. I met with a coworker in his office and he had a quote framed on his desk that seemed sexually suggestive. It was probably meant to be funny, but I found it offensive. He’s otherwise a very respectful person ... am I just being too sensitive?

A. No, if you find it offensive, chances are others do, too. Encourage him to remove the quote. If he refuses, report the conduct to your manager, Human Resources Representative, or the [Executive Vice President, Human Resources](#).

Know Our Policies

[Equal Employment Opportunity Policy](#)

[Anti-harassment Policy](#)

[Human Rights Policy](#)

Volunteering

We are committed to being good corporate citizens and honoring volunteer activities that improve the quality of life for others.

Your volunteer time should not interfere with your work schedule. We support your involvement in Company-sponsored volunteer activities, but you should never feel pressured to participate.

Sustaining the Planet

Sustainability is a fundamental principle that impacts every part of our business. That’s why we are committed to conserving natural resources, preventing pollution, and creating innovative packaging that uses renewable and recyclable materials with renewable energy to sustain our world.

We also keep in mind that sustainability does not work as a top-down edict. It requires commitment and participation from the ground up, both in our Company and in the community.

What about business partners?

We source products and materials responsibly. This means that we consider a business partner’s impact on the environment before agreeing to work with them.

Help and contribute by always looking for ways to:

- Improve operations – for example, by saving energy and water
- Minimize our environmental footprint – for example, by recycling and reusing materials whenever possible
- Dispose of hazardous material properly – for example, by following proper procedures and protocols
- Come up with creative solutions – for example, by creating products that serve our customers while protecting the planet

Making Good Decisions

Q. A nearby school wants to start a recycling program. Can I offer the Company's support in any way?

A. It depends. Our dedication to protecting our environment starts with participation in these kinds of grassroots efforts. We may be able to assist with environment education, too, but discuss this opportunity with your manager or a supervisor and obtain approval before proceeding.

Q. One of our storage containers is always leaking, and I am concerned that the leaking fluids could harm the environment. What should I do?

A. Report this incident to your manager right away. By speaking up, you can make sure that the issue is addressed and any potential harm to the environment is removed. We appreciate our employees joining us in our efforts.

Know Our Policies

[Sustainability Statement](#)

WE ARE PERSONALLY ACCOUNTABLE

Each individual is personally responsible for doing their job to the best of their abilities and delivering on results. We never quit in meeting our commitments to shareholders, customers, and employees.

Protecting Your Privacy

We collect and store personal data related to your employment in accordance with applicable data protection laws and regulations. This may include personal identifiers, such as dates of birth and social security numbers as well as compensation, medical, and benefit data. We do not release personal information from your personnel file, except to verify employment or for legitimate business or legal reasons.

What is "personal information" and how do I protect it?

Personal information is *any* information that can reasonably be linked to a person, including:

- Names
- Personal identification numbers
- Birthdays

Protect personal information by:

- Following all records management policies and data privacy laws
- Never sharing it with anyone who does not have a business need to know it
- Being mindful of where and how you discuss it
- Practicing good cybersecurity

Making Good Decisions

Q. I overheard a coworker discussing our Company health insurance benefits with someone over the phone. Does this violate our Code?

A. No. General information about our health insurance plan is not considered private.

Q. I received an email from an unknown sender. I am up to date on anti-virus protection. Would it be okay to click the link in the email to find out more?

A. No. No matter how strong our systematic defenses are, we must still be wary of attachments and links. Even anti-virus protection cannot protect us from certain online attacks targeted to steal our personal information. Before clicking anything, contact our Information Technology Department and tell them what you've found.

Know Our Policies

[Data Privacy Policy](#)

[California Consumer Privacy Act Applicant and Employee Privacy Notice](#)

Protecting Confidential Information

We may work with confidential, nonpublic information about our Company, suppliers, business partners, or competitors during the course of doing business. We comply with all laws regarding sharing public

information and do not disclose information that could harm business performance, such as marketing plans, sales figures, customer and supplier lists, new products, and financial data.

In general. Do not share or discuss confidential information with anyone unless it is for the purpose of performing your job or the person has been authorized to have the information to fulfill a business need. Keep all such information secure.

Making Good Decisions

Q. A close friend works for an advertising agency. When we talk about work, she often asks me to share what I know about our marketing plans.

A. Tell your friend that such information is confidential, and you are not allowed to discuss our marketing plans or strategies with anyone outside the Company.

Safeguarding Company Assets

Physical Property

We use buildings, vehicles, equipment, machinery, supplies, and other physical assets for conducting Company business. Do not take them without authorization or use them improperly or in a wasteful, careless, or unsafe manner. "Borrowing" tools without permission or taking "scrap" from sites is considered theft of Company property. Please consult your supervisor before removing any Company property from a facility. Help us protect our Company assets by reporting damage, theft, or disrepair to your supervisor or manager. Your commitment helps us remain productive and safe at work.

Information Technology

We provide information technology (IT) tools to help you do your job. This includes electronic devices and access to the internet, intranet, email, and our IT Enterprise Systems. Follow our IT usage policies to ensure the privacy and security of all electronic communications.

In general. Everything you send, receive, write, download, store, or transmit on our Systems is Company property and may be reviewed by Graphic Packaging. We have an obligation to monitor our Systems and devices (such as computers and cellphones) for certain content because it helps to protect our customers and employees. With that in mind, only use our IT Enterprise Systems to conduct Company business. Respect copyright and trademark laws and the privacy of the Company and your coworkers at all times. Never use the Company internet to:

- Disclose nonpublic or material information that could violate insider trading laws
- Disclose confidential information such as proprietary or trade secrets, nonpublic information concerning business partners, vendors, or customers, or attorney-client privileged information
- Post anything that is harassing, intimidating, malicious, or that could contribute to a hostile work environment on the basis of race, sex, disability, religion, or any other characteristic protected by applicable law or Company policy

You may connect personal devices to our network with prior approval as long as you meet security standards.

How to help safeguard our Systems:

Practice good cybersecurity to avoid phishing, malware, ransomware, and other forms of cyberattacks. Always remember to:

- Avoid pop-ups and unknown emails and links
- Use strong password protection and authentication
- Connect to secure Wi-Fi
- Stay current on security software updates
- Take all required trainings

If you leave the Company, you must return all documents, files, and reports created or used while you worked for us.

System accounts. We protect our Systems and are careful not to download non-business software or other information that could introduce viruses into our Systems. Change your passwords regularly to maintain the security of our accounts and never share your passwords with others.

Email, messaging, file storage, and using social media. Our emails and electronic messages are reserved for business purposes during working time. We use our email systems and social media in a way that reflects our Core Values. Social media includes anything we post online -- at websites such as Facebook, Instagram, LinkedIn, Twitter -- and on message boards, blogs, chat rooms, and more.

Social media sites are public and can be viewed by anyone. Identify any posts you make about Graphic Packaging as coming from you personally. Before you post on social media, be sure you know what is permissible and what is not. For example:

- Never post information about our customers or confidential information about our Company
- Always disclose your connection to Graphic Packaging if you comment on any of our products or services
- Remember our zero-tolerance policy on harassment and discrimination when posting content

Making Good Decisions

Q. One of my colleagues is a Facebook friend. He posted a link to his blog where he mentioned a business deal with one of our vendors. Is this a problem?

A. Yes. Vendor business information is confidential. Posting it on a blog violates our Code and may put us at risk. Tell your colleague to delete the post and refer him to our policies so he blogs more responsibly.

Q. I saw a complaint on a social media post about one of our products. I know that it could be resolved with a quick response. Would it be okay if I write back?

A. No. We want to make sure all our messaging is consistent, so it's best to report what you found to Corporate Communications. They will then make sure the response is accurate and that it reflects the brand voice of Graphic Packaging.

Security. We respect Company security systems. Do not use remote control software or externally hosted remote management services to access non-approved personal computer devices over our IT Enterprise Systems.

Making Good Decisions

Q. While traveling for work, I called a coworker at the office to ask her to get into my email account and read an important message from a supplier. Was it okay to give her my password?

A. No. Sharing passwords with coworkers could compromise the security of your account and our IT Enterprise Systems. Next time call your manager or supervisor.

Q. One of my coworkers sells a lot of stuff on eBay. At the top of her eBay page, she put a large image of our Company logo with the Company name, so it appears her eBay business is sponsored by us. Should I tell my supervisor?

A. Yes. While reproduction of our logo is allowed in some circumstances, we do not allow use of our logo or trademarks to represent an employee's outside commercial venture.

Work Product

We protect proprietary Company information such as patents, trade secrets, trademarks, and copyrights. Do not share this information with anyone either inside or outside of work unless it is for a legitimate business reason. We also retain legal ownership of your work product such as machine, carton, or graphic designs; written and electronic documents; audio and video recordings; system code; and any concept or idea developed for the Company.

Political Contributions

We applaud participation in the political process, but your personal political activity should take place on your own time, using your own resources. Do not participate in political activity, solicit support for political candidates, or raise money for political campaigns or parties during working time or while conducting Company business, unless you have approval from the CEO. The Company's Political Action Committee may host or sponsor activities; and, if eligible, you may be asked for support, but you should never feel pressured to participate.

Theft of Company Property

We each have a stake in our Company's success, so it is up to all of us to protect our Company's assets. That is why we work with honesty and integrity and never tolerate employee theft or stealing of any kind. We use Company assets in the way they are intended to be used, and never borrow, lend, sell, take, or give anything away without receiving proper authorization first.

We also look out for signs of theft, like missing supplies and discrepancies of cash amounts, and speak up whenever we suspect something is not right. In doing so, we keep in mind that employee theft goes beyond taking home pens and paper. It covers a wide range of assets, including:

- Money – for example, pocketing loose bills and misusing Company credit cards
- Time – for example, falsifying timesheets to receive pay for time not worked
- Supplies – for example, taking home Company tools, computers, and scrap materials
- Products – for example, theft of Company products or materials used to create our products
- Information – for example, stealing or sharing our product designs or trade secrets

If you see or suspect misconduct of any kind, report it right away. Doing so protects Graphic Packaging's bottom line, allowing us to continue protecting our customers, clients, and each other.

WE BUILD POSITIVE RELATIONSHIPS AND WE WORK TOGETHER AS A TEAM

We depend on each other for our success. Our attitudes are positive, our communications are open and direct, and our actions consider the needs of others. We use our differences to explore new ideas, increase our understanding, and win together by combining our strengths.

Working With Customers and Suppliers

We will work with our customers and suppliers in a manner that reflects a strong sensitivity and concern for social responsibility and ethical dealings, and will maintain our solid reputation for honesty and fairness in all transactions. Each of us shares an obligation to protect and strengthen our good reputation in all of our relationships with customers and suppliers. Deal fairly with them, as well as with our competitors and employees. Do not take unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair dealing practice.

For example ...

- ☐ Do not offer a bribe, payoff, kickback, or other payment for any improper or illegal purpose on our behalf, directly or indirectly, regardless of motive, to or for the benefit of any customer, supplier, developer, or any of their employees.
- ☐ You may extend social amenities, reasonable entertainment, and other courtesies consistent with our policies to customers, suppliers, or their employees. Expensive gifts or lavish entertainment may not be offered or furnished to any customer, supplier, or their employees.
- ☐ You must seek the best terms available when purchasing goods or services for us and document the purpose and actual amount of the payment.

Making Good Decisions

Q. A colleague added a surcharge to a customer's invoice. When I questioned it, she said the customer won't know the difference. What should I do?

A. Report it to your manager, Human Resources Representative, a Senior or Executive Vice President, or the Company's General Counsel. Padding a bill is unethical and could be illegal, and it violates our Code.

Know Our Policies

[Anti-bribery and Anti-corruption Policy](#)

Imports/Exports and Anti-boycott

We abide by all applicable import and export laws and any restrictions and regulations. This includes product safety requirements, anti-terrorism rulings, and regulations requiring the collection of duties and taxes. We do not conduct business with countries or persons prohibited by U.S. law or the laws of any other country in which we do business. Some countries have trade restrictions that are prohibited in the U.S. and other countries in which we have facilities, or boycotts against countries that are friendly to the U.S. and other countries in which we have facilities. In these circumstances, we comply with any relevant,

applicable anti-boycott laws. Report any request you receive to transact business with a country or company that appears to violate or calls into question anti-boycott laws.

Antitrust and Competition

We believe in the free market system and fully comply with antitrust and competition laws. We don't enter into any agreements with competitors, customers, or suppliers that restrict competition. Do not discuss with our competitors any topics related to costs, inventories, pricing policies, products, product development, promotion, marketing, sales activities and goals, market studies, or other proprietary or confidential information about a competing product or territory or market activity. This could be seen as a violation of antitrust laws. If you are asked to engage in such discussions, report it to the [Law Department](#).

Never get involved in any discussion that may be interpreted as interfering with free and fair competition.

Distributing Literature

Do not distribute literature, solicit support, or request donations or memberships for community, political, or religious causes while you are on the job. Non-Company employees may do so only as part of an authorized charitable or community activity supported or sponsored by us. You should never feel pressured to participate in or donate to such activities.

Conflicts of Interest

We are a dynamic group with interests, activities, and relationships outside of Graphic Packaging, and we make sure our outside pursuits never interfere with the work we do or the decisions we make on behalf of our Company. We avoid "conflicts of interest" – and the appearance of such – and disclose any activity that could suggest something improper.

Recognizing Conflicts

A conflict of interest can happen when your personal interests – or the interests of a family member – interfere – or even appear to interfere – with the interests of Graphic Packaging. The best way to avoid a conflict of interest is to know how to recognize when one can occur. It is not possible to list every scenario, but look out for:

Working relationships:

- Supervising or making employment-related decisions for a relative or romantic partner
- Having a relative who works for one of our suppliers or customers
- Hiring a relative of any employee unless approved by the Executive Vice President, Human Resources

Ask Yourself:

- Would this situation interfere with my job responsibilities?
- Would it affect the decisions I make on behalf of Graphic Packaging?
- Could this look like a conflict to someone else?

If the answer to any of these is "yes" or "I'm not sure," there may be a potential conflict, and you should [seek help](#) before proceeding.

Contact your Human Resources Representative if you have a question about working with, supervising, or hiring a relative.

Outside employment:

- Accepting any job that would conflict with your responsibilities at Graphic Packaging, interfere with your performance, or harm our reputation
- Working for or providing advice to a competitor or supplier
- Sharing information with outside organizations about Graphic Packaging, our customers, or suppliers
- Serving as a manager, consultant, or director to a customer, supplier, competitor, or investment organization, without approval from the [Law Department](#)

Gifts:

- Offering or accepting anything that unfairly influences a business decision, makes you feel uncomfortable, or creates a sense of obligation
- Offering or accepting anything lavish, expensive, frequent, or non-customary
- Offering anything of value to a government official or to retain business

Never offer favors or gifts to government officials.

Financial opportunities:

- Representing us in a transaction with another organization in which you or a relative has a material interest without advance approval from our CEO
- Having a material interest in a customer, supplier, or competitor
- Accepting a loan from any person or entity that does or seeks to do business with us (aside from recognized financial institutions at market interest rates)

Corporate opportunities:

- Using your role at Graphic Packaging or Company information, resources, or property for your own personal benefit or the benefit of friends or relatives
- Reselling Graphic Packaging merchandise

Disclosure

If you suspect you may have a conflict, be honest and transparent by discussing the situation with your manager immediately. Discovering that you have a potential conflict of interest is usually not a violation of our Code but continuing to work without disclosing it is a violation. Many conflicts can be avoided or mitigated if they are promptly disclosed.

Making Good Decisions

Q. A supplier gave my supervisor a few tickets to see a local sports team. My supervisor disclosed the gift to the head of my division, who approved of them. Was that okay?

A. Yes. Accepting gifts of nominal value from suppliers is acceptable, and since the head of the division approved of the gift, it is okay.

Q. For years, my father owned a business that supplied some raw materials to the Company. He sold the business when he retired but may retain some interest in it. Should I tell someone?

A. Yes. You must let us know if you or a family member has at least a 5% interest in a business that competes with us, sells goods to us, or buys from us. Report it to our [Law Department](#) to make sure.

Know Our Policies

[Anti-bribery and Anti-corruption Policy](#)

[Disclosure Policy](#)

[Policy Regarding Related Party Transactions](#) <<hyperlink to policy>>

[Disclosure Policy](#)

Honoring Human and Workplace Rights

We prohibit the hiring of individuals who are under 18 years of age for positions that would expose them to hazardous work or materials. The Company also prohibits the use of all forms of forced labor, including slave and prison labor, and any form of human trafficking.

In addition, as described in our Policy Statement on Conflict Minerals, our goal is to use only those products that do not finance or benefit armed groups in the Democratic Republic of Congo and nine adjoining countries. We expect our suppliers to cooperate in providing information to confirm that the conflict minerals in our supply chain are "conflict free."

We uphold human rights as part of our corporate culture.

Know Our Policies

[Human Rights Policy](#)

[California Transparency Act](#)

[United Kingdom \(UK\) Modern Slavery Act Policy](#)

[Policy Statement on Conflict Minerals](#)

Ensuring Product Quality and Safety

We are committed to the highest level of quality in our products and stand behind our brands. We comply with safety standards and minimize or eliminate known risks. Never "cut corners" to save time or money when it would result in an inferior product.

We encourage innovation and are receptive to new ideas that will help us better meet customer expectations and achieve greater productivity, operational safety, and environmental sustainability.

We are proud of our high record of safety and work hard to keep it that way.

Communicating About Graphic Packaging

We keep the public and the investment community informed about our business performance. This reinforces our positive reputation and helps maintain the trust we have earned worldwide. To ensure Company information is consistent, honest, and correct, do not speak with the media on the Company's behalf, unless specifically authorized to do so. If you are contacted by someone from the media, refer them to the [Executive Vice President, Human Resources](#).

Making Good Decisions

Q. I got a call from an online news site reporter asking me to give the Company's opinion on something she read in a press release. I gave her my supervisor's phone number. Was that the right thing to do?

A. Yes. Only authorized spokespersons are allowed to speak on our behalf. Your supervisor can direct the reporter to the Executive Vice President, Human Resources or another authorized spokesperson for the Company.

CERTIFICATION OF UNDERSTANDING

I have read and understand the Code of Conduct for Graphic Packaging Holding Company and its Subsidiaries. I represent, by signing below, that I fully and completely understand that I am responsible for the Code of Conduct and Company policy as they apply to me, and I am aware of the procedures for reporting violations of the policy. I further understand that if I violate the policy or fail to report a violation of the policy that I will be subject to discipline up to and including termination of employment.

I understand that I may report a violation, by calling the Alertline available 24 hours a day, seven days a week at the appropriate phone number for my location.

I understand I may also report a concern online by visiting the website located at gpibusinessconductALERTline.ethicspoint.com.

I understand that I will not be subjected to any adverse action or retaliation for filing a good faith report with the **ALERTline**.

Signature

Printed Name

Location/Facility

Title

Date

Return this signed form to your manager or supervisor or your Human Resources Representative.

RESOURCES**General Counsel**

Lauren S. Tashma
Executive Vice President, General Counsel, and Secretary
Lauren.Tashma@graphicpkg.com

Internal Audit

Lori Kaczynski
Vice President, Internal Audit, and
Chief Audit Executive
Lori.Kaczynski@graphicpkg.com

Corporate Law Department

Law.Department@graphicpkg.com

Each of the above may be reached at the following physical mailing address:

Graphic Packaging International
1500 Riveredge Parkway, N.W., Suite 100
Atlanta, Georgia 30328

Alertline

To confidentially report a violation of our Code, or another Graphic Packaging policy; please visit our [ALERTline](#) online at gpibusinessconductALERTline.ethicspoint.com. You may also contact any of our resources below by email or phone – including specific ALERTline phone numbers for your country.

Australia	1.800.339276
Belgium	0800-77004
Brazil	0.800.891.1667
Canada	1.866.898.3750 1.855.350.9393
China	10.800.120.1239 10.800.712.1239
France	0.800.90.2500
Germany	0.800.101.6582
Greece	0.080.012.6576
Ireland	1-800615403
Italy	800.786.907
Japan	00531.121520 0066.33.112505
Mexico	001.800.840.7907 001.866.737.6850
Netherlands	0800-0226174
New Zealand	000-911-866-898-3750
Spain	900.991.498
United Kingdom	0.800.032.8483
United States	1.866.898.3750

POLICY LINKS

Below are links to detailed policies referenced in the Code. Note that this is not an exhaustive list of policies – all Company policies may be accessed in our [Policy Handbook](#).

[Anti-bribery and Anti-corruption Policy](#)

[Anti-harassment Policy](#)

[California Transparency Act](#)

[CCPA Applicant and Employee Privacy Notice](#)

[Data Privacy Policy](#)

[Disclosure Policy](#)

[Equal Employment Opportunity Policy](#)

[Health and Safety Policy](#)

[Human Rights Policy](#)

[Policy on Trading in Securities](#)

[Policy Regarding Related Party Transactions](#)

[Policy Statement on Conflict Minerals](#)

[Sustainability Statement](#)

[United Kingdom \(UK\) Modern Slavery Act Policy](#)

[Workplace Violence Policy](#)

SUBSIDIARIES OF THE REGISTRANT

Subsidiary Name	Jurisdiction of Incorporation
Altivity Packaging Grupo, S. de R.L. de C.V.	Mexico
Altivity Packaging Servicios, S. de R.L. de C.V.	Mexico
Bond Project Holdings, LLC	Delaware
Field Container Queretaro (USA), L.L.C.	Delaware
Gbox SA de C.V.	Mexico
GPI Converting, LLC	Delaware
GPI Funding LLC	Delaware
GPI Funding II, LLC	Delaware
GPI Holding I, Inc.	Delaware
GPI Holding II, Inc.	Delaware
GPI Holding III, LLC	Delaware
GPI Netherlands Finance B.V.	Netherlands
GPI Scotland Limited	UK
Graphic Packaging Flexible Holdings, LLC	Delaware
Graphic Packaging International (Shanghai) Co., Ltd.	China
Graphic Packaging International Australia Converting Limited	Australia
Graphic Packaging International Australia Pty Limited	Australia
Graphic Packaging International Bardon Limited	UK
Graphic Packaging International Box Holdings Limited	UK
Graphic Packaging International Bremen GmbH	Germany
Graphic Packaging International Canada, ULC	British Columbia
Graphic Packaging International Cartons Santander, S.A.	Spain
Graphic Packaging International Distribution Limited	UK
Graphic Packaging International do Brasil - Embalagens Ltda.	Brazil
Graphic Packaging International Enterprises, LLC	Delaware
Graphic Packaging International Europe Carton Design Limited	UK
Graphic Packaging International Europe Cartons B.V.	Netherlands
Graphic Packaging International Europe Finance & Real Estate B.V.	Netherlands
Graphic Packaging International Europe Holdings B.V.	Netherlands
Graphic Packaging International Europe Netherlands B.V.	Netherlands
Graphic Packaging International Europe Netherlands Holdings B.V.	Netherlands
Graphic Packaging International Europe N.V.	Belgium
Graphic Packaging International Europe Spain Holding, S.L.	Spain
Graphic Packaging International Europe UK Holdings Limited	UK
Graphic Packaging International Europe UK Limited	UK
Graphic Packaging International Foodservice Europe Ltd	UK
Graphic Packaging International France	France
Graphic Packaging International Gateshead Limited	UK
Graphic Packaging International Holding Company, LLC	Delaware
Graphic Packaging International Holdings Mexico, S. de R.L. de C.V.	Mexico
Graphic Packaging International Ireland Designated Activity Company	Ireland
Graphic Packaging International Japan Ltd.	Japan
Graphic Packaging International Limited	UK
Graphic Packaging International, LLC	Delaware

Graphic Packaging International Mexicana, S. de R.L. de C.V.	Mexico
Graphic Packaging International New Zealand Limited	New Zealand
Graphic Packaging International Operadora de Mexico, S. de R.L. de C.V.	Mexico
Graphic Packaging International Partners, LLC	Delaware
Graphic Packaging International Philanthropic Fund	Delaware
Graphic Packaging International S.p.A.	Italy
Graphic Packaging International Servicios, S. de R.L. de C.V.	Mexico
Graphic Packaging International Spain, S.A.	Spain
Graphic Packaging International UK Finance Limited	UK
Graphic Packaging International US Finance LLC	Delaware
Graphic Packaging UK Pension Trustee Company Ltd.	UK
Handschy Holdings, LLC	Delaware
Handschy Industries, LLC	Delaware
New Materials Limited	UK
Print Design & Graphics Limited	UK
PrinTech Systems B.V.	Netherlands
Rengo Riverwood Packaging, Limited	Japan
Riverdale Industries, LLC	Delaware
Riverwood International Pension Trustee Company Ltd.	UK
Shoo 553 Limited	UK
Spur Development, LLC	Delaware

Guarantors and Issuers of Guaranteed Securities

Each of the following entities has fully and unconditionally guaranteed the 4.75% Senior Notes due 2021 and the 4.875% Senior Notes due 2022 issued by Graphic Packaging International, Inc. (predecessor to Graphic Packaging International, LLC):

Name of Guarantor	Role	Jurisdiction of Incorporation or Organization
Graphic Packaging Holding Company	Parent Guarantor	Delaware
Graphic Packaging Corporation*	Parent Guarantor	Delaware
Bluegrass Container Canada Holdings, LLC*	Subsidiary Guarantor	Delaware
Bluegrass Labels Company, LLC*	Subsidiary Guarantor	Delaware
Field Container Queretaro (USA), L.L.C.	Subsidiary Guarantor	Delaware
Handschy Holdings, LLC	Subsidiary Guarantor	Delaware
Handschy Industries, LLC	Subsidiary Guarantor	Delaware
Riverdale Industries, LLC	Subsidiary Guarantor	Delaware

Each of the following entities has fully and unconditionally guaranteed the 4.125% Senior Notes due 2024 issued by Graphic Packaging International, Inc. (predecessor to Graphic Packaging International, LLC):

Name of Guarantor Subsidiary	Role	Jurisdiction of Incorporation or Organization
Graphic Packaging Holding Company	Parent Guarantor	Delaware
Field Container Queretaro (USA), L.L.C.	Subsidiary Guarantor	Delaware
Handschy Holdings, LLC	Subsidiary Guarantor	Delaware
Handschy Industries, LLC	Subsidiary Guarantor	Delaware
Riverdale Industries, LLC	Subsidiary Guarantor	Delaware
GPI WG Acquisition Sub, LLC*	Subsidiary Guarantor	Delaware
Walter G. Anderson, Inc.*	Subsidiary Guarantor	Minnesota

*Each of these entities has been merged out of existence or sold as of 12/31/2020.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-258255 and 333-240119) and on Form S-8 (Nos. 333-234291 and 333-197677) of Graphic Packaging Holding Company of our report dated February 22, 2022 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/PricewaterhouseCoopers LLP
Atlanta, Georgia
February 22, 2022

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-3 No. 333-240119) of Graphic Packaging Holding Company,
- (2) Registration Statement (Form S-3 No. 333-258255) of Graphic Packaging Holding Company and Graphic Packaging International, LLC
- (3) Registration Statement (Form S-8 No. 333-234291) of Graphic Packaging Holding Company, and
- (4) Registration Statement (Form S-8 No. 333-197677) of Graphic Packaging Holding Company pertaining to the Employees' Savings Plan of Graphic Packaging Holding Company;

of our report dated February 10, 2020, with respect to the consolidated financial statements of Graphic Packaging Holding Company included in this Annual Report (Form 10-K) of Graphic Packaging Holding Company for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Atlanta, Georgia
February 22, 2022

CERTIFICATION

I, Michael P. Doss certify that:

1. I have reviewed this Annual Report on Form 10-K of Graphic Packaging Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Michael P. Doss

Michael P. Doss,
President and Chief Executive Officer
(Principal Executive Officer)
February 22, 2022

CERTIFICATION

I, Stephen R. Scherger certify that:

1. I have reviewed this Annual Report on Form 10-K of Graphic Packaging Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Stephen R. Scherger

Stephen R Scherger
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)
February 22, 2022

CERTIFICATION

Pursuant to 18 United States Code Section 1350,

As adopted pursuant to Section 906 of the

Sarbanes-Oxley Act of 2002

The undersigned hereby certifies that, to my knowledge, the Annual Report on Form 10-K for the period ended December 31, 2021 of Graphic Packaging Holding Company (the "Company") filed with the Securities and Exchange Commission on the date hereof fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael P. Doss

Name: Michael P. Doss,

Title: President and Chief Executive Officer

February 22, 2022

CERTIFICATION

Pursuant to 18 United States Code Section 1350,

As adopted pursuant to Section 906 of the

Sarbanes-Oxley Act of 2002

The undersigned hereby certifies that, to my knowledge, the Annual Report on Form 10-K for the period ended December 31, 2021 of Graphic Packaging Holding Company (the "Company") filed with the Securities and Exchange Commission on the date hereof fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Stephen R. Scherger

Name: Stephen R. Scherger

Title: Executive Vice President and Chief Financial Officer

February 22, 2022